

A

T R E A T I S E

ON THE

Diseases of Women;

In which it is attempted to join a just Theory to
the most safe and approved Practice.

W I T H

A Chronological Catalogue of the Physicians, who
have written on these Diseases.

Translated from the FRENCH Original;

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Physic at Paris, and consulting Physician to the
King of FRANCE. K

*In hoc gaudeo aliquid discere, ut doceam : nec me ulla res delectabit,
licet eximia sit & salutaris, quam mihi uni sciturus sim.*

Senec. Lib. I. Epist. 6,

V O L. I.

L O N D O N,

Printed for J. Nourse, Bookseller in Ordinary to his MAJESTY.

MDCCLXII.



P R E F A C E

O F T H E

A U T H O R.

THE art of medicine is in a continual state of improvement; but, in proportion as it advances, the study of it becomes more difficult. To be regarded, formerly, as an able physician, nothing more was wanting, than to be acquainted with the principal passages of Hippocrates, and Galen; and informed of the means employed to reconcile their contradictions: to know the names, and definitions of diseases; and comprehend their apparent causes: to have the memory furnished with some recipes, sanctified by long use, and transmitted from one hand to another; or servilely copied in books: and after all, to take shelter opportunely in the doctrine of occult qualities, when any difficulty occurred, of which the solution was not to be found.

At present, to deserve the same title, it is requisite to have qualifications much more extensive;

five; and much less easy to be acquired. It is necessary to know the structure of all the parts of the body: to understand their proper functions, and the mechanism subservient to the execution of them: to judge of the disorders, to which they are subject; and which are the source of diseases: to distinguish the characters or differences of each of these disorders; and, by this means, the different kinds of the diseases themselves: to determine the seat, nature, and immediate cause of each: to deduce thence the general opinion that ought to be formed, and the intentions of cure that ought to be pursued: to be thoroughly apprized of the different aids, which may be obtained from the *Materia Medica*, either in the simple or compound remedies that it supplies, in order to chuse, on every occasion, those which are best accommodated to the end proposed: and to understand how to employ and modify them with prudence, as circumstances may require.

In the attainment of these different qualifications, it is requisite to guard against blindly following our own imagination; and substituting conjectures, *hypothesis*, and meer suppositions, for truths. This is too apt to be the case, when we begin to throw off the yoke of the antients; which, by giving medicine the air of romance, has not a little contributed, though unjustly, to discredit it.

In a science of so much importance, nothing ought to be advanced, but what is founded on the known structure of the diseased parts; on facts which fall continually under our cognizance
in

in practice, and are generally admitted ; or just observations, published by physicians on whom we may depend, respecting such facts as are of a singular nature, and seldom occur. If we are obliged to make any *hypothesis* to explain difficult points, as sometimes happens in researches so deep, care ought to be taken to declare, that what is proposed, is only matter of conjecture, which it may be proper to admit till such time, as the truth can be discovered with positive certainty.

If these qualifications be necessary to every physician, who would maintain his character in the profession with honour, they are much more so to those who have the charge of teaching medicine : and above all, to such as undertake to write on this science, and publish their works.

I find myself, nevertheless, under both these circumstances. I have filled for several years the chairs of the professorship of physic at Toulouse, Montpelier, and Paris : and I have for a considerable time published medicinal works. It may be, therefore, reasonably concluded, that I have been long sensible of those obligations, which lie on me from both the titles of writer, and professor ; and which I have not in any point neglected to fulfil.

I applied myself in my youth to anatomy, and acquired, at a very early age, the necessary qualifications, with regard to that branch of knowledge, for studying, and teaching medicine. A long course of practice has furnished me with the opportunity of informing myself of all the

facts, which commonly offer themselves in the treatment of those diseases, *quæ sunt quotidianæ occurſionis*: and which are the most important, and the most necessary part of medicine. I have, moreover, applied myself to learn the particulars of those rare and singular cases, which are not presented to the view of every physician, *non omnibus omnia*: and to this end, I have consulted many collections of remarks.

It is scarcely credible, how many such cases I have read, and how many observations I have examined: but however useful they may be in general, medicine begins to be overloaded with them, through the inutility or absurdity of numbers of them. As nothing is more difficult than to observe well, nothing of course is more rare than a good observator. Nevertheless, all mankind believe themselves capable of being so; and the most unqualified to perform it, are almost always the most forward to take this task upon them; and to publish their productions with the greatest confidence.

I acknowledge it is not without being surfeited with them, that I have gone over so great a number of such collections: and I question whether Virgil was ever so much so in reading the verses of Ennius. But we had both the same design: for I endeavoured, like him, to extract something useful from this heap of things, that contained so little of what was good; and this supported my patience.

The knowledge, of which there is the greatest defect in the present state of medicine, and which

is, nevertheless, the most essential to it, is what regards the efficacy of remedies proposed for each disease. If we were to believe authors, who have written on this matter, there is no medicine whatever, that is not proper to cure many diseases: but when, depending on their authority, we come to the trial, we find that the greatest part will in reality cure none.

There is no room to hope, that medicine can be improved in this most useful light, but by observations on the effects of simple medicaments, repeated with the greatest accuracy, by persons the most intelligent, assiduous, and free from prejudice: and we ought not, therefore, to expect much aid in this point from physicians, who are employed by the public. Those, who are most in vogue, frequently want the talents requisite for making good observations; and frequently they want the leisure. It is only under the authority of the king, or through his protection, there can be hopes of collecting a body of useful and certain observations, by entrusting the care of making them to persons of learning and knowledge, and such as are capable of judging without prejudice of the effects, of the medicines they are directed to try.

The encouragement, which his present majesty gives to the advancement of the sciences, has already lead him to send astronomers to the torrid and frigid zones, to measure the degrees of latitude. He has lately appointed others to go, one to the north, and another to the south, to observe the transit of Venus over the disk of the Sun.

These undertakings are certainly worthy the munificence of a prince ; but the design of rendering medicine more perfect ; of ascertaining the virtues of remedies ; and of gaining lights into their true properties ; so useful for the preservation of his subjects, his august family, and his sacred person, is not less worthy his regard ; and it is to be hoped, that he will establish this project through his authority, as soon as it shall be presented to his view.

In the mean time, I have done, with respect to this matter, all that can be hoped for from a private physician in the present state of things. I have enumerated for every disease, the remedies the most certain, or the best vouched. I have pointed out those, which have appeared to me dubious, although recommended by some other physicians. I have even introduced many singular remedies, which authors have proposed : and if I have taken the liberty of declaring my sentiments of them, it is less with design to condemn, than to render them objects of attention, in order to their being tried when opportunities offer.

As I have long taught, at the Royal College, the contents of this treatise, at several repeated times, according to the new courses of lectures on diseases, which I have begun, somewhat of the plan I follow, and the system I propose in this work, has been already seen.

The zeal of pupils for their teachers, and the eagerness with which they publish, even unknown

known to them, what they have learnt, are very apparent to the world. I have experienced it myself in more than one manner ; but most particularly with respect to this treatise.

In 1740, Mr. Messence, at present doctor regent of the faculty of Paris ; and at that time a student in physic ; presented me with a *thesis*, he had formed from the lectures which I then read ; and with relation to which, he desired some explanation of me, that I gave him with pleasure. This *thesis* was maintained in the physic-school, in the beginning of the year 1741, by Mr. Arragon, who was then obtaining his licence : and who formed it, also, under this title, *Utrum à mutuo sanguiferorum, lactiferorumque uteri vasorum nisi menstrua purgatio?* After having exhibited the mechanism of the menstrual flux, in the manner it will be found in this work, *Book I. Chapter I, II, and III*, the affirmative was concluded.

About the same time nearly, an English physician, whom I know, only by the initial letters *J. R-n*, by which he signed himself, in the title page of his book, attended at these lectures ; and took advantage of what he could retain of them himself, and of what other pupils could collect in the same manner. On his return to England, he printed this collection in English, at London, in 1743, in *octavo*, under the name of *A Treatise on all the Diseases incident to Women* : where, in the title page, he declares, that this treatise is taken from my lectures ; as he affirms more explicitly in the preface, in which,

which, he gives me commendations, I should think myself very happy to merit.

I mention these two facts, to show, that as early as the time mentioned, the lectures I read were judged to be productive of some good : and I may be easily pardoned this kind of vanity ; since it is the only recompence of all my trouble. It is indeed a great matter of exultation to me, who never proposed any other end in my studies, than that of rendering myself serviceable ; who never endeavoured to obtain knowledge, but with the view of imparting it to others, *aliquid discere ut docerem* : and who, as I have remarked, in the title page of this work, never set any value on discoveries, however singular, if I could not communicate them : *quem nulla res delectabit, licet eximia sit, & salutaris, quam mihi uni sciturus sim.*

As I have composed the present work with this disposition of mind, it may be justly presumed, that I have neither concealed, nor forged any thing. I have every where delivered the truth solely, as far as I was informed of it ; and I have, to the utmost of my abilities, proposed those remedies for every disease, which are most safe, most used, and most efficacious. I have omitted, or exploded such medicines, as appeared to me trivial, and superstitious ; or which I know to be of no avail. When the authority of any celebrated physician obliged me to mention any remedy that appeared doubtful, or hazardous, I have taken care to give some intimation of it : but with that caution, which was proper with regard

regard to the reputation of the person who proposed it.

However great may be the number of treatises there are on the diseases of women, I have, nevertheless, found the subject every where immethodically discussed, and little explained, either with respect to theory, or practice. No body has yet thought of founding the theory on the true structure of the *uterus*, and the mechanism of the functions proper to that part: and, as to the practice, nothing more has been in general attempted, than to copy servilely; or where any have made deviations, from a practice that appeared to be vain, it seems as if they did it only to indulge their own imagination in the choice of the medicines, they have selected, without any relation to the certain indications, which the nature of the diseases presented.

As I was aware of these defects; I have endeavoured to remedy them: and believe I have not attempted it in vain, with regard to the theory. I should esteem myself very happy, if I could flatter myself with the same success, in relation to the practice. But, as I have said before, the uncertainty of the *Materia Medica*; the small number of peculiar remedies that it furnishes; and the small degree of faith that ought to be placed in those which are most extolled; have given me little room to propose new methods: and much less to offer such as were very certain.

I shall

I shall be well satisfied, however, if, by means of declaring the poverty, and uncertainty, that attend us in this article, I could attain to the making it be sensibly perceived, how great a need we have of an efficacious succour.

I will conclude with some reflections:

I. I have, in the preface to the Treatise on tumours, censured the use of forms, already composed in the books which treat of medicine. I retain yet the same opinion; and, on that account, I have not inserted any of those standard forms in this work. The ignorant, and the half learned, seldom omit to employ such without distinction of age, constitution, or the strength of the patients; and consequently employ them almost always to an ill purpose.

II. I have not contented myself with enumerating, in detail, the simple medicines proper to answer to the different indications, which diseases present; and to note the doses: but I have done more, I have pointed out the means of composing the different general forms of remedies, under what particular species of form of prescription may be thought proper, by proportioning them to the circumstances of the disease, or state of the patient.

III. In composing these particular forms, I exhort every body to render them as little charged with a multiplicity of ingredients as they can. I know the fondess that some physicians have for heaping into the same prescription, a great number of

of ingredients, often of a contrary nature to each other. But, besides that this tends to surfeit the stomach of the patient, it prevents, moreover, the being able to distinguish which, of the number of the medicaments it is, that really operates successfully ; and of which it may be proper to continue the use.

IV. As the doses, I have noted, are moderate, I believe they may be given to adult women without any danger : at least, if they are not very delicate in their constitution, nor have their strength greatly impaired. Perhaps, it may be proper to augment them in the repetition, in proportion to the continuance of their use. But it is much better to increase the dose of a medicine, which is not found sufficiently powerful, than to be obliged to diminish it on account of its too great operation.

V. The desire of rendering this work serviceable, has induced me to write in French, to place it within the reach of all persons. This gave me some embarrassment, when I had occasion to speak on certain subjects : but I have been careful to employ such expressions only, as have nothing offensive in them.

VI. I believed it proper to add, at the end of this work, a Chronological Catalogue of the authors, who have written on the diseases of women : and there were two reasons, which engaged me to do it. The one to inform young physicians of the antiquity of their profession, and the names of several of the greatest men who

who have successively laboured to extend and explain it. The other, to make them sensible, that this science, which is accused of fluctuation, has always proceeded on the same fundamental principles, from which it has never deviated ; notwithstanding the variations which vanity, interest, caprice, and fashion, might introduce on this score, that had nothing essential in them.

VIII. It may be perceived, that this work is not yet compleat. There wants a third book on *pregnancy*, and the *diseases incident to it*, to which I have referred in more than one place. I hope to give it soon : and it makes a fifth volume, which will be sold separately.

T A B L E
O F T H E
C O N T E N T S
O F T H E
F I R S T V O L U M E.

BOOK THE FIRST.
Of the diseases of women caused by the
menses.

C H A P. I.

*Of the structure of the uterus; its veinous
appendices; and vermicular vessels.*

- | | |
|---|--------|
| §. I. General description of the uterus, | Page 1 |
| II. Particular description of the blood-vessels
of the uterus, | 4 |
| III. Particular description of the lactiferous,
or vermicular vessels of the uterus, | 7 |

C H A P.

C H A P. II.

Of the menstrual flux, or menses of women,

§. I. <i>Facts,</i>	11
II. <i>Causes,</i>	ibid.
III. <i>Consequences,</i>	14
IV. <i>Explanation of facts which respect the menses,</i>	27
V. <i>Explanation of the symptoms of menstruation,</i>	29
VI. <i>Uses of menstruation,</i>	38
	42

C H A P. III.

Of the first eruption of the menses; and of the accidents which precede, or accompany it,

§. I. <i>Description,</i>	45
First state,	ibid.
Second state,	46
Third state,	47
Fourth state,	49
Fifth state,	51
Compound state,	53
II. <i>Diagnostic,</i>	54
III. <i>Prognostic,</i>	55
IV. <i>Method of cure,</i>	56
<i>Medicines used to promote the first eruption of the menses,</i>	58
	63

C H A P. IV.

Of the menses, suppressed or diminished,

§. I. <i>Description,</i>	65
II. <i>Causes,</i>	ibid.
III. <i>Dif-</i>	66

C O N T E N T S.

xv

§. III. Differences,	71
IV. Symptoms,	73
V. Diagnostic,	77
VI. Prognostic,	83
VII. Method of cure,	86
<i>Of the sudden suppression of the menses, which happens suddenly during the time they flow;</i>	ibid.
<i>Of the suppression, which, without stopping the menses while they flow, only prevents their returning at the due time,</i>	89
<i>Precautions necessary in the treatment of the suppression of the menses,</i>	104
<i>Medicines recommended in the suppression of the menses, which may be used with- out danger,</i>	107
<i>Remedies recommended in the suppressions of the menses ; but of which the effects are suspected,</i>	115

C H A P. V.

<i>Of the menses retained by some fault of conformation,</i>	119
--	-----

§. I. Description,	ibid.
II. Causes,	121
III. Differences,	129
IV. Symptoms,	131
V. Diagnostic,	133
VI. Prognostic,	135
VIII. Method of cure,	138

<i>Precautions necessary to be taken in the performance of the operations which have been spoken of,</i>	143
--	-----

C O N T E N T S.

C H A P. VI.

<i>Of difficult and laborious menses,</i>	146
§. I. <i>Description,</i>	ibid.
II. <i>Causes,</i>	147
III. <i>Differences,</i>	149
IV. <i>Symptoms,</i>	151
V. <i>Diagnostic,</i>	152
VI. <i>Prognostic,</i>	153
VII. <i>Method of cure,</i>	155
<i>Precautions,</i>	ibid.

C H A P. VII.

<i>Of the deviating menses,</i>	158
§. I. <i>Differences,</i>	ibid.
II. <i>Causes,</i>	159
III. <i>Symptoms,</i>	162
IV. <i>Diagnostic,</i>	165
V. <i>Prognostic,</i>	ibid.
VI. <i>Method of cure,</i>	167

C H A P. VIII.

<i>Of the green-sickness, or chlorosis,</i>	171
§. I. <i>Description,</i>	ibid.
II. <i>Causes,</i>	174
III. <i>Symptoms,</i>	181
IV. <i>Diagnostic,</i>	188
V. <i>Prognostic,</i>	190
VI. <i>Method of cure,</i>	192

C H A P. IX.

<i>Of excessive menses, and floodings,</i>	204
§. I. <i>Description,</i>	ibid.
II. <i>Causes of the excessive menses,</i>	206
III. <i>Causes of flooding,</i>	211
IV. <i>Explanation of the differences,</i>	215
§. V. <i>Sym-</i>	

C O N T E N T S.

xvii

§. V. Symptoms,	217
IV. Diagnostic,	221
VII. Prognostic,	226
VIII. Method of cure,	228
First case. <i>Actual and copious flooding, or hæmorrhage of the uterus,</i>	ibid.
Second case. <i>Moderate actual discharge of blood; or dripping of the uterus,</i>	239
Third case. <i>Method of preventing the return of floodings,</i>	249
<i>Necessary precautions in the cure of flood- ings,</i>	251
<i>Remedies recommended in floodings; which may be used with success; or, at least, without danger,</i>	256
<i>Remedies recommended by some authors, but of little efficacy, and often even not safe,</i>	260

C H A P. X.

<i>Of the fluor albus,</i>	265
§. I. Description and differences,	ibid.
II. Causes,	268
<i>Causes of the milky fluor albus,</i>	ibid.
<i>Causes of the lymphous fluor albus,</i>	271
III. Explanation of the differences mentioned in the description of the fluor albus,	273
IV. Symptoms,	278
V. Diagnostic,	281
VI. Prognostic,	292
VII. Method of cure,	296
<i>Method of cure of the milky fluor albus,</i>	ibid.
<i>Method of cure of the lymphatic fluor albus,</i>	302
<i>Method of palliative cure of the fluor albus,</i>	307
	Neces-

C O N T E N T S.

<i>Necessary cautions in the treatment of the fluor albus,</i>	309
<i>Remedies recommended for the cure of the fluor albus ; but which cannot be used without danger in some cases,</i>	311
<i>Remedies proposed for the fluor albus ; but suspicious, and even dangerous,</i>	314

C H A P. XI.

<i>Of the cessation of the menses ; and the accidents which it may bring on,</i>	322
--	-----

§. I. <i>Description,</i>	ibid.
II. <i>Causes and symptoms,</i>	323
<i>First state of the uterus,</i>	324
<i>Second state,</i>	326
<i>Third state,</i>	327
<i>Fourth state,</i>	329
<i>Compound states,</i>	330
III. <i>Diagnostic,</i>	331
IV. <i>Prognostic,</i>	334
V. <i>Method of cure,</i>	336
<i>Necessary precautions in the treatment of women who are losing their menses,</i>	339

C H A P. XII.

<i>Of the furor uterinus,</i>	341
-------------------------------	-----

§. I. <i>Description,</i>	342
II. <i>Causes,</i>	346
III. <i>Differences,</i>	353
IV. <i>Symptoms,</i>	354
V. <i>Diagnostic,</i>	358
VI. <i>Prognostic,</i>	359
VII. <i>Method of cure,</i>	361
VIII. <i>Some remedies which are particularly recommended in the furor uterinus,</i>	370

EXPLANATION

**EXPLANATION of the Figures which represent
the interior Structure of the Uterus.**

THOUGH these figures have been taken from the uterus of a woman who died in the ninth month of her pregnancy, where the blood-vessels and lactiferous vessels were very much dilated; it has been thought proper, nevertheless, in order to render them more distinguishable, to enlarge them to more than double the real magnitude.

All the figures represent the internal surface of the uterus: for it is only on that side, the venous appendices are visible: but the interior coat of the uterus is supposed here to be transparent, and suffer the lactiferous vessels, which are in it, on the side which adheres to the muscular coat, to be seen through it; without which, it would have been unavoidable to have doubled all the figures.

T A B L E I.

The figure in this table represents the distribution of the blood-vessels, as well arteries as veins, on the surface of the internal membrane of the uterus; and shews the manner of the circulation of the blood in it.

- A. A branch of an artery.
- B. A branch of a vein.
- CCCC. Capillary ramifications of the branch of an artery A, which inosculate, and communicate with each other, by several intermediate branches; and terminate at the ramifications of veins, which correspond to them.
- DDDD. Capillary ramifications of veins, which, after having received the blood from the capillary ramifications, of the arteries, to which they are continuous, communicate with each other by several intermediate branches; and terminate, at last, in the venous branch B.
- These ramifications of arteries, and veins, form by their *anastomoses*, a kind of net-work.
- EEEE. Circular holes placed at the points of union of two or three of the ramifications of the arteries and veins; from whence arise the venous appendices, which are described in the next table.

T A B L E

TABLE II.

The figure in this table is the same as that in the preceding, with the addition of the venous appendices.

- A. A branch of an artery.
- B. A branch of a vein.
- CCCC. Capillary arterial ramifications of the branch A; which, after having communicated with each other by intermediate branches, pass on to terminate in capillarations of veins.
- DDDD. Capillary venous ramifications, which spring from the capillary ramifications of arteries; and which, after having communicated with each other by several intermediate branches, form, by their union, the venous branch B.
- EEEE. Veinous appendices, or small ends of veins placed in the point of union of several branches, or ramifications of arteries, or veins, open on one side into the cavity of the vessel, in which they are placed, and closed on the other. These appendices pierce the internal coat; and pass into the cavity of the uterus, into which they open in the time of the menses.

TABLE III.

Figure I.

This figure represents one of the clues of the lactiferous vessels, designed to separate the uterine milk for the purposes explained, Book I, Chapters I, II, and III.

- A. A vesicula, that is situated in the center of each clue; into the cavity of which, pass nine or ten vermicular vessels, of the length of two, three, or four lines, that deposit there the milky humour. The cavity of each of these vesicula communicate with that of the uterus, by a small excretory duct, which pierces the internal coat of the uterus; and discharges into it, at certain times, the milk with which the vesiculae are filled.
- BBB. Vermicular lactiferous vessels, that convey into the vesicula A, the milk, or milky humour, which they have secreted.
- CCCC. Capillary lymphatic vessels, which spring from the vesicula; and which emit the most liquid part into the milk, or milky humour, that is collected there, to carry it into the larger lymphatic vessels.

Figures

Figure II.

This figure represents a clue of the lactiferous vessels, such as that of the preceding figure, with this difference only, that here the vermicular lactiferous vessels are winding, as they are naturally: whereas, in Figure I, they are placed at greater distances, and extended to render them more apparent.

- A. A *vesicula*, or center of a clue.
 BBB. Vermicular lactiferous vessels, winding, and close to each other, as they are naturally.

Figure III.

This figure represents a portion of the internal coat of the *uterus*, seen on the side next the cavity of it.

- ABCD. A portion of the internal coat of the *uterus*, seen on the side of the cavity of the *uterus*.
 EEE. The *veinous appendices*, described in *Table II.*, as they pass into the *uterus*, near the end of the time of pregnancy. They pass much less far into it, in the time of the *menses*: and, at others, scarcely at all.

T A B L E IV.

In the figure of this table are represented, the distribution, and circulation of the blood, in the net-work of the capillary ramifications of arteries and veins; such as were explained above, *Table I.*

- A. Branch of an artery.
 B. Branch of a vein.
 DDD. Lactiferous vessels rising from the points, where the ramifications of arteries and veins meet.
 CCC. Lactiferous vessels applied to the capillary ramifications of veins, where they wind about for the purposes explained, *Book I, Chapters I, II, and III.*

It must be remarked, that this figure shews the internal surface of the coat of the *uterus*, on the side of the cavity of it, into which the *appendices* pass, as has been said. It has been thought proper, to represent here the lactiferous vessels; which can, nevertheless, be seen only on the other side of this coat, as has been before mentioned. But if this coat be supposed to be transparent; and, by that means, the *veinous appendices*, and lactiferous vessels, seen at the same time; it affords a better opportunity of judging of their relation to each other.



ADVERTISEMENT.

TO prevent mistakes, which might be attended with very considerable inconveniencies, it seems proper to remark, as a cautionary intimation, that the compound remedies, mentioned in this work, where the contrary is not expressly specified, are supposed to be prepared according to the *Pharmacopeia* of the Faculty of Paris; and, consequently, vary greatly, as well in the kind, as the proportion of the most powerful ingredients, from those which are in use with us, under the same denominations.



T R E A T I S E

O N T H E

Diseases of Women.

BOOK THE FIRST.

Of the diseases of women caused by the
mensæ.

CHAPTER THE FIRST.

Of the structure of the uterus; of its veinous appendices; and its vermicular vessels.

§. I. GENERAL DESCRIPTION OF THE UTERUS.

I DO not propose here to give an accurate and particular description of the *uterus*; as that would be digressing from my subject, without any reason. I take it for granted, my readers are already informed, either by the inspection of dead bodies, or by the reading books of anatomy, of whatever is known of the situation, figure, size, members, connections, passages, blood-vessels, lymphatics, nerves, and coats of this part; and consequently understand;

1°. That the *uterus* lies betwixt the bladder and the *rectum*; and is contained in the *pelvis*, that is to say, in the inferior cavity of the *abdomen*, formed

2 O F T H E D I S E A S E S

by the *os innominata* and *os sacrum*, above which it does not reach, unless in the time of pregnancy.

2°. That it has the figure of a pear with its point turned downwards, a little flattish before and behind in virgins, but almost spherical in women that have had a child.

3°. That it is scarcely two inches broad from the right to the left, one inch thick from before to behind, and three inches high from the top to the bottom, in women who have not borne children: but somewhat bigger in those who have.

4°. That the cavity, which it incloses, can hardly contain an almond even in adults, when they are not pregnant; although, at that time, it dilates itself enough to hold a child, and sometimes two.

5°. That they distinguish in the *uterus*, the *superior* and *posterior* part, where it is the broadest, called the *fundus*; and the *inferior* and *anterior* part, where it is narrowest, called the *neck*.

6°. That the neck of the *uterus* is connected, by the expansion of the *peritoneum* which covers it, to the *bladder*, and the *os pubis* before; to the *rectum*, and the *os sacrum* behind; and to the *os ilium* by the sides.

7°. That the *fundus* is fixt on the two sides by four ligaments: two of which are called the *broad ligaments*, or *morsus diaboli*, which spring from the posterior part of the *uterus*, and connect, and sustain, the *ovaria*, and the *cornua*; and which are, properly speaking, only a simple expansion of the *peritoneum*: the other two are called the *round ligaments*; which take their rise from the lateral parts of the *uterus*, towards the places, where the *cornua* join it; and, being again covered by a production of the *peritoneum*, pass by the rings of the abdominal muscles, and proceed to their termination without on the *os pubis*.

8°. That the inferior part, or neck, of the *uterus*, projects into the *vagina*, which admits part of it into its own cavity; and that, at the end of a kind of

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Snout, which it forms there, is a cross slit, known by the name of the orifice of the *uterus*, by which the *vagina* communicate with the *uterus*.

9°. That the *fundus*, or superior part, of the *uterus*, is pierced laterally, at the right and left, by the two *cornua* or *Fallopian* tubes, which open into its cavity, for uses, that will be explained below.

10°. That the *uterus* receives arteries from different trunks; as from the *spermatic*, the *hypogastric*, and even the *interior hæmorrhoidal* arteries, according to its different parts, superior, middle, and inferior; and that for the same reason, its veins join to different trunks, such as the *spermatic*, the *hypogastric*, and the *inferior hæmorrhoidal* veins.

11°. That there rise from the body of the *uterus*, a great number of lymphatic vessels, almost all which spend themselves in the conglobate glands, lying betwixt the bifurcation of the *aorta descendens*; from whence the lymph is afterwards conveyed into the conglobate glands of the mesentery, and thence into the receptacle of *Pecquet*, according to the course of the circulation of the lymph.

12°. That the *uterus* receives many nervous filaments, from the extremities of the intercostal nerves; and the pairs of the *medulla spinalis*, which come out between the *vertebrae* of the loins, or through the perforations of the *os pubis*.

13°. Lastly, that the *uterus* is formed of three distinct coats: that the first, or exterior, is only a simple production of the *peritonæum*, which covers the outside of the *fundus*, and the sides of the *uterus*, and which by folding back has some share in its ligation with the neighbouring parts. That the second is carnosus and muscular, furnished with many circular, spiral, longitudinal, transverse, and oblique fibres, which intersect each other in different directions; and which make the principal part of the substance of the *uterus*. That the third, the least of all, is nervous, or rather tendinous, considerably uneven on the side where it is conjoined with the fleshy coat, but smooth and even

4 OF THE DISEASES

on the other, except towards the orifice of the *uterus*, where may be seen many oblique transverse *rugæ*, amongst which are found a pretty great number of little spherical vessels, full of a viscid lymph; which a physician of Leipsic (Martin Naboth) has imagined to be the true *ova*, designed for the formation of the *fatus*.

§. II. Particular description of the blood-vessels of the uterus.

To the knowledge of these general matters, there need only be added, that of two facts, less understood, but more important; of which I conceive it will be necessary to give a circumstantial detail. The one regards the distribution, and conformation of the blood-vessels, which creep betwixt the middle, and the internal coats of the *uterus*; and the other respects the structure of the particular vessels, that are found betwixt the same coats, and have the office of strainers; and the nature of the humour separated by them.

The uterine arteries, when they come near the *uterus*, divide, and subdivide themselves into several branches; and, in consequence of multiplying, and diminishing continually, become at last capillary ramifications; which make a great number of windings, and twist themselves in a thousand various forms on the several coats of the *uterus*: but seem particularly to be more copiously distributed, and to make a greater variety of windings, betwixt the muscular and nervous coats.

These arterial ramifications, in consequence of subdividing themselves, almost disappear to the eye; but, if they be inspected with attention, especially after they are injected, it will be perceived, that every one terminates in a new canal, cylindrical, hollow, of a structure nearly similar, but a little thicker, and consequently more perceptible; which are all so many first, or capillary, ramifications of uterine veins. These

new ramifications make in the *uterus*, yet more windings, than the arterial ramifications: but, in doing this, they reunite little by little one with the other; and by these repeated reunions form branches thicker and thicker, which conjoin at last with the trunks of the uterine veins.

Besides this direct union of the venous ramifications, which collects them into one common trunk, there are betwixt them, in the same manner as betwixt the arterial, an almost infinite number of communications, or lateral *anastomoses*; which make these ramifications, when well injected, appear to form a kind of close net-work. By this means, the blood, which passes from the arteries into the veins, may turn to any side; and nature, in multiplying these communications, seems only to have intended to multiply the ways by which it may pass off.

Hitherto the distribution of the arteries and veins in the substance of the *uterus* has nothing different from that of the same vessels in the other parts of the body; or, at most, it only differs, in that, the vessels of the *uterus*, particularly the veins, make more windings and twistings; and the lateral *anastomoses*, which maintain a mutual communication betwixt them, are there more numerous.

But what constitutes the most important difference, in the distribution of blood in the *uterus*, is, that, from each point of reunion of these venous *anastomoses*, at the place where the two vessels communicate with each other, and where the conflux of the blood is formed often, even in different places, along the veins, or their *anastomoses*, there rises, perpendicularly, a little projection, or little *appendix* of a vein of the same size, which pierces the internal coat of the *uterus*, and terminates on its surface. These venous *appendices* are only sensible in women who are pregnant, and only during the last months of their pregnancy: but it is then found, that they project into the *uterus* three or four lines, in the place where the *placenta* adheres to it; that by these projections

they sink into, or, as it were, bury themselves in proportionable hollows, or beds, which are formed in the substance of the *placenta*; that they conduce, by this means, to strengthen the adhesion of the *placenta* to the *uterus*; and, moreover, that they emit through their extremities, which are open, the blood of the mother into the *cellulae* of the *placenta*, from whence it is absorbed by the umbilical veins, and conveyed to the *embryo*.

As in this state, these *appendices* are pretty large, though not all equally so, they are not only perceptible to the eye, but even a probe moderately thick may be introduced, and passed, without difficulty, to the branches of the veins, whence they rise, to ascertain, by this means, the facts that have been advanced. But it is in vain, in all other states of the *uterus*, to attempt to perform this: because these *appendices* rediminish, in the same proportion, as the branches of the veins from whence they spring; and their minuteness renders them almost wholly invisible, when the *uterus* has regained its ordinary magnitude.

I have before remarked, that these *appendices* open into the *placenta*, and there discharge the blood in the time of pregnancy. There is reason to believe, that they are open also in the time of the *menstrues*; and that it is from thence the menstrual blood comes. Excepting in these two cases, they are perfectly closed on the side of the *uterus*, and, as their smallness does not permit us to perceive by what mechanism it is effected, we are at liberty to suppose, for this end, a kind of stoppel, or valve, which applies itself from without; or, what appears more plausible, to admit, the extremity may be closed by the simple elasticity of the fibres alone, or, otherwise, by the simple contraction of the circular fibres, which surround it.

It is apparent, according to any supposition with respect to this conformation, the blood cannot flow out through these *appendices*, except in the times of pregnancy

pregnancy, or menstruation. At all others, that which enters must stagnate; or, what is more probable, and more conformable to the laws of circulation, must be renewed, but very slowly, and by a continuation of the direct circulation which is made in the vein, and which communicates, by minute degrees, even with the cavity of the lateral *appendix*; much in the same manner, as the stream of water in a river communicates with the hollow pits of the banks, and renews the water gradually in them.

§. III. Particular description of the lactiferous, or vermicular, vessels of the uterus.

There is found, under the same internal coat of the *uterus*, another kind of vessels, that cannot, any more than the veinous *appendices*, be distinguished, except in the last months of pregnancy; but which may be easily enough perceived by the eye at that time.

1°. There is nothing more required, in order to this, than to turn the *uterus* of a woman dead in the last month of her pregnancy, or in labour, inside outwards; and, after having slightly wiped it in the parts, where the *placenta* does not adhere to it, and where the coat is pretty even, to squeeze it gently, by compressing it on the under side, where an infinity of drops will be seen to run out through holes, or pores, almost imperceptible; which must, nevertheless, be the mouths of so many vessels, intended to separate this humour.

2°. But if, after having let the same *uterus* macerate some hours in vinegar, it be stript of the internal coat, by tearing it dexterously, there will then be rendered visible, an infinite number of little vessels; vermicular; white; thicker than strong raw silk; three, four, or five lines, in length; and full of a milky liquor, which flows out of them when they are prickt, or torn; and which is the same as is seen to run out of the *uterus* in the preceding experiment.

8 OF THE DISEASES

These vessels are interwoven, in a thousand different manners, with the venous ramifications, that will be presently described; and with the *anastomoses*, or lateral communications, which conjoin them. Sometimes they creep near them in a parallel direction: sometimes they cross them above or below, at right, or oblique, angles: sometimes they embrace them; and in winding, twist themselves around them. In all these various positions, they seem closely connected with venous ramifications; and they form, together with them, the pulpy substance, that is betwixt the middle and internal coats of the *uterus*.

If any person have the patience to dissect, or rather to unravel, these vessels with the point of a needle, it will be found, that they may be separated into different *fasciculi*, each of four or five vessels; that in each of the *fasciculi*, the vessels, which compose it, reunite themselves at the end, where is pretty frequently found, a kind of dilatation, or of bag, which serves as the common reservoir of this *fasciculus*: and it is in this point of reunion, that they pierce the internal coat which covers them, in order to open themselves into the *uterus*; and to pour into it, through as many excretory pores, the milky humour they contain.

As to the other extremity of these vessels; it appears to be perfectly closed: and it is so in reality. But this does not prevent, nevertheless, these vessels from being pierced both at this end, and in their whole extension, by many capillary ramifications of lymphatic vessels; which absorb the liquor contained in their cavities, when it is thin and subtle enough to insinuate itself into their orifices: or which, at least, when it is too thick to be capable of passing intirely, strain from it the more liquid and fine parts.

It cannot be doubted, but that these vessels serve in the time of utero-gestation, to separate from the blood, a milky liquor; nearly in the same manner as the spermatic, which form the testicles of men,
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separate the *semen*. It is equally apparent, that, when they are full, they convey it into the *uterus*, to serve for the nourishment of the *embryo*; as we shall have occasion to explain more fully below.

It is not to be concluded with the same certainty, what uses those vessels may be of in women not pregnant; nor of what kind of humour, they then become the strainers. It is merely the subject of conjecture: but the known œconomy of the human body; and the comparison of the breasts, which have so evident an analogy with the *uterus*, give us a right to presume, that the humour, which these vessels separate in the *uterus*, should be of the same nature with that of the *vesiculae* of the breasts; and that it should undergo successively the same alterations; which must produce the same changes in the breasts, and in the *uterus*; and make that sympathetic relation, that subsists betwixt those parts.

In young girls, till the age of fourteen years, the humour of the *uterus*, in the same manner as that of the breasts, is only pure lymph; or, at most, lymph mixt with a small quantity of chylous parts. As these humours are consequently very fluid, the lymphatic vessels of the *uterus*, and the breasts, may evacuate them from their reservoirs, as fast as they come there. For which reasons, there is nothing then, that can dilate either the vessels of the breasts, or the vermicular vessels of the *uterus*; and during that time, the breasts consequently remain small and flat; and the *uterus* hard, close, and compact.

But about the fourteenth year of age, as the increase of the body begins to be more slow in girls, the consumption of blood, and consequently of chyle which forms it, becomes also less. Whence there is then more chyle than is requisite for the nourishment of the body; and the surplus mixes by degrees with the lymph of the breast and *uterus*, with which it has already some analogy; and renders this lymph from day to day more milky. Thus these two humours, becoming more thick, find a more difficult passage

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10 OF THE DISEASES

in the lymphatic vessels designed to take them up again; remain longer in the reservoirs that contain them; dilate these vessels, and swell them more and more by accumulating there; and occasion thence the bosom to grow bigger, the breasts to be formed, and the *uterus* to be extended, dilated, and enlarged; which constitutes puberty in women; and renders them fit to be married, *viro maturas*.

These changes become yet greater after conception. Then, for reasons below explained, the chyle mixes much more abundantly with these humours; finishes at last to render entirely milky; and by that deprives them of the power of penetrating into the lymphatic vessels, at least with respect to such part of them as is of a thicker consistence, which occasions, that, by means of accumulating in their reservoirs, they distend them more and more; and dilate in proportion the substance of the *uterus* and the breasts. In consequence of dilating their reservoirs, they also open the excretory ducts of them, and procure themselves a passage out; the one into the *uterus* for the nourishment of the *fætus* during pregnancy; and the other, by the extremities of the breast, to feed the child after it is born.

It is easy to collect from thence, that the vermicular vessels in the *uterus* must not be expected to be found in women who are not pregnant: since, even if their minuteness did not render them imperceptible, the colour, and transparency of the humour they contain, would be sufficient to render them indistinguishable. It has been before observed, that during such time they are only full of a lymph, which partakes but little of a milky nature, and is almost transparent. For which reason, it would be very difficult to distinguish them from the vessels purely lymphatic; or even from the simple fibrous filaments that connect the coats together.

To render more clearly intelligible, what has been said, I have thought it proper, to add some figures, which exhibit to view the structure of the *uterus*, according

cording to the description I have given of it; which will be found at the beginning of this book.

C H A P. II.

Of the menstrual flux, or menses of women.

§. I. FACTS.

WOMEN, during a certain age, are subject to a periodical evacuation of blood, that is peculiar to them; and which comes from the *uterus*. This evacuation is so general, that there is scarcely found one woman in a hundred, in whom it is wanting, unless when ill, or pregnant.

I. The first marks of this evacuation appear commonly in girls towards the fourteenth or fifteenth year of their age. There are, however, many instances of those, in whom it begins sooner; and of others, in whom it happens later.

II. This evacuation, having taken place, returns once every month, according to the common course; but there are, nevertheless, girls, who, without being ill, have the *menses* naturally twice every month; or, at least, three times in two months.

III. Hence the returns of the *menses* are found to be ordinarily regulated by the revolution of one month: but this, nevertheless, admits of frequent variations: for many women have them every twenty-seventh or twenty-eighth day; and others have them only once in five weeks.

IV. The duration of this evacuation is pretty variable: but it is, nevertheless, rare, that it does not last for three days, or cease before the end of six: and it is considered generally as a disease, when the *menses* continue less than three days, or more than six.

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V. There are three divisions of time commonly distinguished in the flowing of the *menses*: the beginning, and increase; the continuance in the greatest degree; and the diminution, and intire cessation: which are nearly equal intervals of time; and more or less long in proportion to the whole duration of the flux. It is not often seen in the order of nature, that the *menses* begin or end suddenly.

VI. It is difficult to ascertain the quantity of blood, that is evacuated each time: for it varies in each subject; and often even at each return in the same subject.

Commonly these variations are limited to eight ounces for the least, and sixteen for the greatest evacuation. Though there are some women who lose less, and others who lose more, without being ill.

VII. The *menses* observe a certain proportion, for the most part regular, betwixt the progresses of their beginning; and the diminutions of their end. But there are women, nevertheless, in whom the increase is more rapid than the declension; and others, in whom the decrease is more quick than the augmentation.

VIII. Most generally there is a considerable uniformity in the duration, and the quantity, at each return of the *menses*. But it is, however, observed, that there are women, in whom the *menses* are alternately from month to month, more or less abundant; and continue a longer or shorter time.

IX. However common it may be, that the *menses* flow without any interruption from the beginning to the end, and do not re-appear again after they have once ceased, there may be found instances of women, in whom, after having flowed for some days, they stop of themselves; but come again two or three days after, flowing afresh for some time.

X. The blood which is discharged in the *menses* is of itself laudable and good in the women who are themselves in health, and of a good constitution.

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Whatever is said of its acrimony, and contagious quality, ought only to be understood of the menstrual blood of women, who are diseased; and in whom it is before depraved; or who have ulcers in the *uterus*, which infect it; or in whom, at least, the menstrual blood corrupts in the *uterus*, by being detained there. But even, in these three cases, there is yet much to be abated of the bad effects, which are attributed to the blood of the *menses*.

XI. The menstrual evacuation is generally preceded and succeeded by some lymphous discharge; which comes before, or follows after, for a greater or less length of time; and which is more or less abundant, according to the constitution of the women, and the state of the *uterus*. There are, nevertheless, many healthful women of good constitutions, in whom no discharge of this kind is found, either before or after the *menses*.

XII. The *menses* are wanting in the state of pregnancy; especially in the last months: for they sometimes do continue in the three first. They are also wanting in most women who give suck: as likewise in some who work hard, or in some country girls; among whom there are instances of such as never have the *menses*, and yet never receive any inconvenience on that account.

XIII. The approach of the *menses* is commonly shewn by pain in the *pubis*; groins; kidneys, or rather loins; &c: by the swelling of the lips of the *vulva*, or of some pimples on them: by the tension, heat, and sensibility, of the *vagina*: by piles internally or externally: by the frequent wanting to make water, and heat of urine, and the thickness of it when discharged; or its tendency to be turbid and grow thick on cooling: by the tension and swelling of the breasts: by frequent shortnesses of breath: by disorders of the head, either heaviness or shootings: by drowsiness, or want of sleep: by frightful dreams, and waking in starts: &c. But it is seldom that these accidents are perceived above four or five days before
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the coming on of the *menses*; and generally they precede it only one or two days.

XIV. To conclude, this evacuation continues in the same order, and with the same periods, to the age of forty, forty-five, and fifty years, when it ceases of itself. As the beginning of it is variable in different women, the cessation is so also: and it takes place sooner or later, according to the natural disposition, and the kind of life of the women; the diseases which they have had; and the climates where they have lived.

§. II. CAUSES.

I. The first question which arises in the explanation of the causes of menstruation, regards the place whence the *menses* flow: whether it be from the cavity of the *uterus* itself, or only from that of the *vagina*. Authorities; and what are yet more prevalent, observations; are alledged in support of each opinion: but the observations which are urged to prove, that the blood of the *menses* comes from the cavity of the *uterus*, are so decisive, and have been made by observers so intelligent, that the determining on this question by them can admit of no hesitation.

1°. Vesalus¹, Peyer², Mauriceau³, Littre⁴, and Schurig⁵, affirm to have seen the *menses* flow from the orifice of the *uterus* in women, who afforded an opportunity of ascertaining the fact, because they had a *descensus* of the whole body of the *uterus*, even to the extremity of the *vulva*. The two last add, that there did not flow one single drop of blood from the *vagina*; of which it was easy to see the whole circumference.

2°. Spigelius⁶ remarks, "that in women who die in the time of their *menses*, the internal coat of the *ute-*

¹ *De humano corporis fabricâ.*
Lib. v. cap. 15.

⁴ *Histoire de l'Académie Royale des Sciences.* Année 1720. pag. 16.

² *In ephemerid. Germanic. Dec.*
ii. ann. 1. Observat. 84.

⁵ *Parthenologie,* sect. ii. cap.

³ *Observations sur la grossesse.*
Observat. 96.

⁶ *De humano corporis fabricâ.*
Lib. viii. cap. 20.

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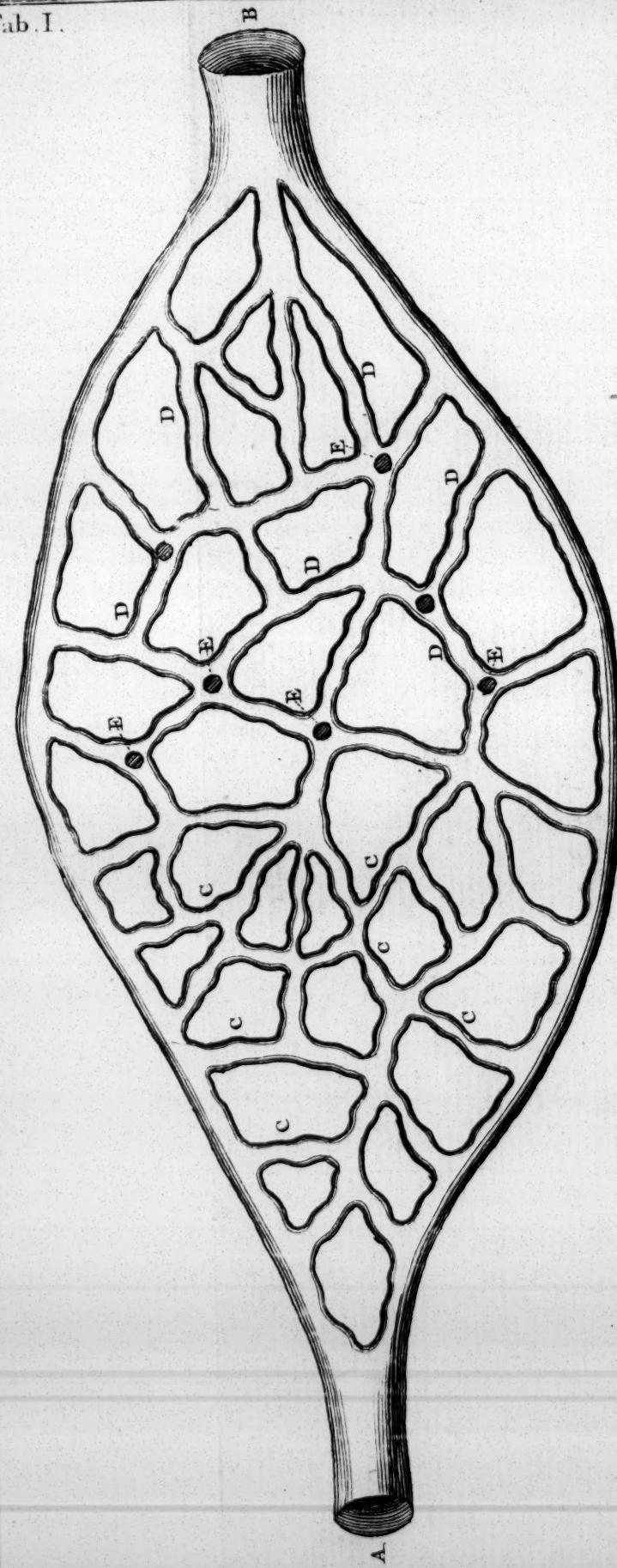
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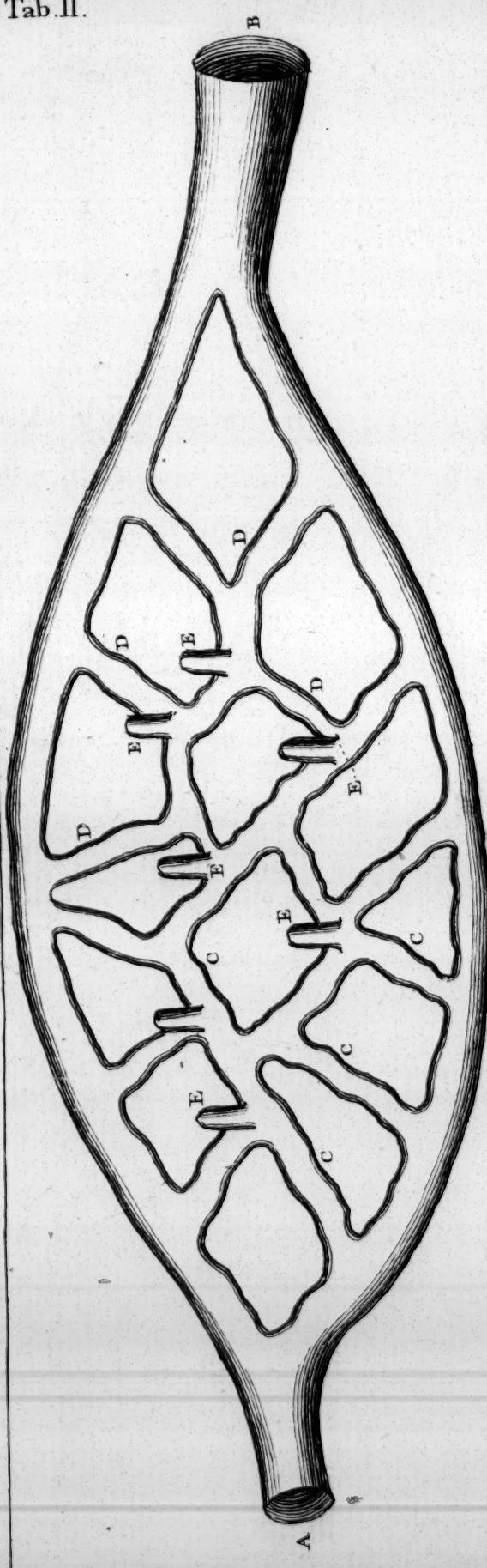
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Tab. I.



Tab. II.



Tab. III.

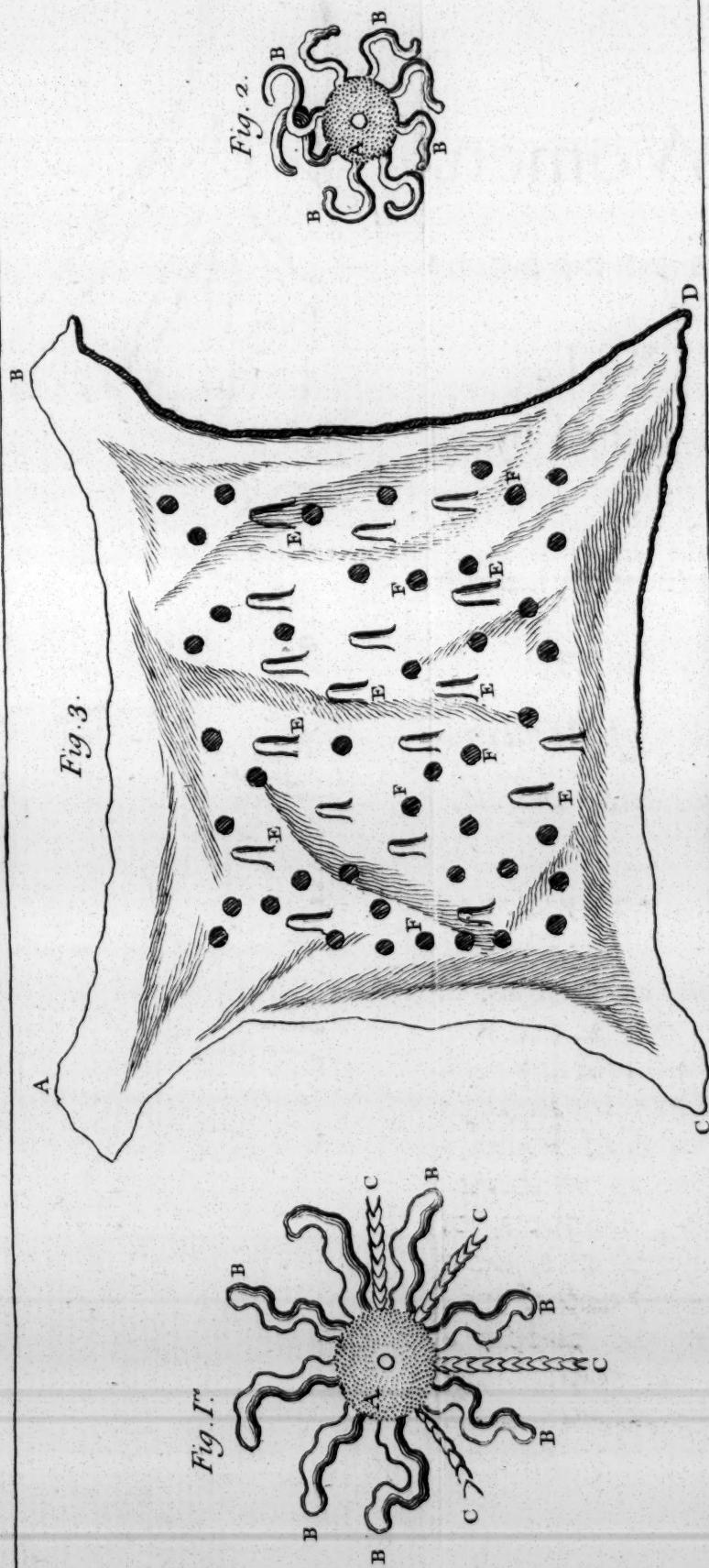


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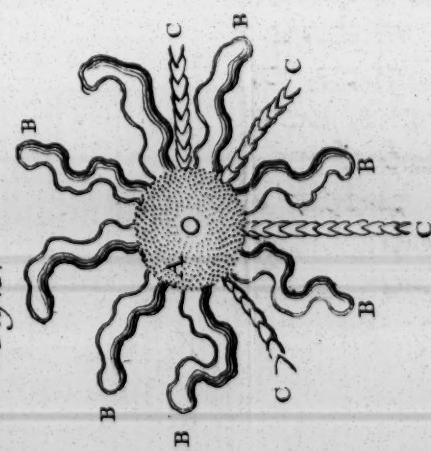
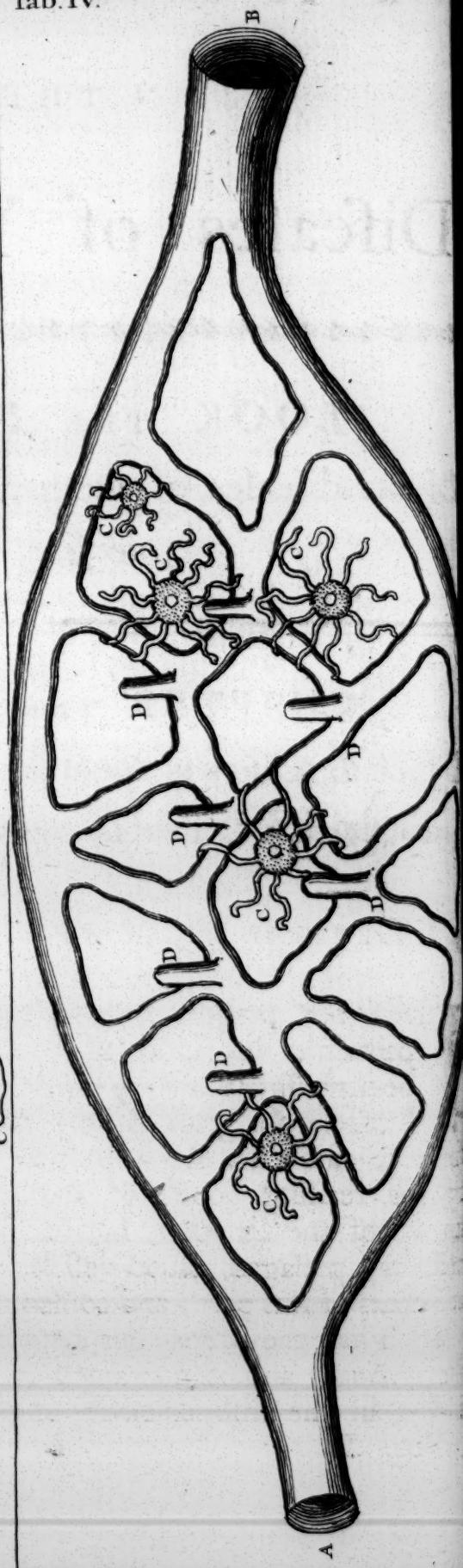


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“ *rus* is found perforated, especially towards the *fundus*, with a great number of holes; which are then very perceptible: but that they are scarcely to be distinguished at any other time. He adds, that it is through these holes the blood of the *menses* makes its passage out.”

3°. Mauriceau ¹ assures us, that he found in the dissection of a woman, who had been hanged as a convict in the time she had actually her *menses*, all the cavity of the fundus of the uterus spread with little grumes of coagulated blood, and the vessels of it much larger than those of the neck; and even full of this coagulated blood towards the orifices which discharge themselves into the fundus: which he says he several times met with in the dissection of the bodies of other women in a similar state: and this he repeats nearly in the same terms ² in another of his works.

4°. Littré ³ has observed also in women who died in the time of their *menses*, that the uterus was large and distended; that its blood vessels overflowed with blood; that there was even some discharged into its cavity; and that its internal surface was all spread over with holes, very perceptible, and full of blood; from whence, on pressing the body of the uterus, from without inwards, the blood was made to flow.

5°. Morgagni ⁴, moreover, has found in the same manner, “ in all the observations he has made on women, who died during the time of their *menses*, or a few days after having had them, that the fundus of the uterus was marked with a great number of bloody spots; but that there appeared nothing like it in the *vagina*. ” Which he repeats in another place ⁵; and supports with the testimony of Santorini, and of all those who have attended his lectures.

¹ *Des Maladies des Femmes grosses & accouchées.* Liv. i. chap. 10. ^{des Sciences.} Ann. 1720. pag. 16.

² *Observations sur la grossesse.* Observat. 49. ^{4 Adversaria Anatomica.} Ad-

³ *Histoire de l'Académie Royale*

⁵ *Advers. iv.* §. 27.

Such strong proofs of the fact can hardly be contradicted; and, at least without being very much prejudiced, one cannot avoid granting, that it is from the cavity of the *uterus*, and not from that of the *vagina*, the blood of the *menses* flows. This opinion is, moreover, greatly compatible with the known uses of the *uterus*: and even from thence is extremely plausible. 1st, It is in the *uterus*, that the blood-vessels are disposed in the greatest number; and it is therefore from thence the menstrual blood should flow. 2dly, Every thing evinces, as we shall see below, that the menstrual blood must serve during pregnancy to nourish the *fetus* in the *uterus*: and it is, therefore, the *uterus* that must supply it. 3dly, It appears that the *lochia* flow after delivery from the same vessels from whence the *menses* flow at the time women are not pregnant: but the *lochia* flow from the vessels of the *uterus*; therefore the menstrual blood also must flow from these vessels. 4thly, To conclude, floodings have been always regarded, and with reason, as a certain sign of an approaching miscarriage. They come, therefore, from the *uterus*: for what injury could they do the *fetus*, if they came from the *vagina*? Thus every thing confirms what these observations teach of the origin of the blood of the *menses*.

It is not, however, to be denied, but that the *menses* often come from the cavity of the *vagina*, at the same time as from that of the *uterus*. There is too much resemblance in the structure of these two parts, too much conformity in the distribution of the blood, and too much communication betwixt the vessels which supply them with it; not to occasion frequently, that the blood should open passages in these two places at the same time, especially in plethoric women. I believe even it may, and does happen sometimes, that the *menses* flow only from the *vagina* alone; when there is some cause which prevents them from flowing from the *uterus*. By this means it is easy to account for the observations¹ of those, who assure

¹ Realdus Columbus. *Anatom.* Lib. vi.

us, that in the dissections they have had an opportunity of making on the bodies of women, who died during the time of their *menses*, they have found the cavity of the *uterus* without any appearance, or sign of blood: while, on the contrary, the *vagina* was filled with it. It may, by the same means, be explained also, how, in some women, the *menses* may continue during the whole time of their pregnancy; as, in many others, they do continue, at least, during the three first months, without producing a miscarriage. To take away all the force of what they would deduce from these facts, let us only suppose, what is very apparent, *viz.* that the *menses* come then in these women from the *vagina* only; without any necessity for the opening the mouth of the *uterus*; and, consequently, without the least alteration happening to the *uterus*.

II. As there are in the *uterus* two kinds of vessels equally full of blood; arteries and veins; it becomes proper to decide another question: to wit, from which of the two, the menstrual blood, that comes from the *uterus*, flows; whether from the veins, or from the arteries? Opinions are divided on this point also: but it must be confessed, the greatest number incline to believe that this blood comes from the veins; and, it is certain, every thing seems to countenance that notion. The colour of this blood is brown, and often black, such as is that of the veins; the slowness with which it flows, drop by drop, is agreeable to the manner of that which comes from the veins; and what is besides more conclusive yet, there is a certainty, that the vessels, from whence the *lochia* flow in childbed women, are ramifications of veins; which determines the nature of the blood of the *lochia*; and, by a necessary inference, that of the blood of the *menses*: which, as we already remarked, flows from the same vessels, and is essentially the same.

III. There still remains a third question to be discussed: *viz.* from what place, and from what part of the veins of the *uterus*, the menstrual blood flows?

But this question does not require much debate. The

knowledge of the structure of the *uterus*, and of the distribution of its vessels, such as has been explained in the preceding chapter, suffices to enable us to judge, that it is from the *appendices* of the veins this blood must flow. They are, of all the venous ramifications, those which advance the farthest into the cavity of the *uterus*; they are those alone which penetrate through the thickness of the interior coat; and they are a kind of ends of veins, which must be intended for some purpose in the design of nature; and which, nevertheless, do not serve for any in the ordinary course of the circulation. They are actually ends of veins simply gathered at their extremities; and thence very proper to unfold themselves, and to open without laceration. All these facts establish such a presumption, as obliges us to conjecture, that it is from these *appendices* the blood flows into the cavity of the *uterus* in the time of menstruation.

But what occasion is there for conjectures, when positive proofs present themselves. 1°. Highmore¹ asserts, "that having opened a woman, who died in the time of her *menses*, he found the internal surface of the *uterus* was all frized with an infinite number of mouths of veins which projected into it."

2°. Winslow² affirms, that the internal coat of the *uterus* is beset with little hairs, extremely fine, and like the pile of velvet, in the women who die in the time of the *menses*; and that these hairs are then red and tinged with blood.

3°. According to Spigelius³, "The internal coat of the *uterus*, particularly towards the *fundus*, is found in women, who have died in the time of their *menses*, pierced with a great number of holes very easily to be distinguished in that state; and from whence it is believed the *menses* flow."

¹ *Corporis humani Disquisition.* ventre, p. 574. Edit. in 4°.
Anatomic. Lib. iii. part. iv. cap. 4. ³ *De humani corporis fabrica*
² *Exposit. Anatom. du bas-* Lib. viii. cap. 20.

4° Mauriceau¹ declares, also, that he has observed, very evidently, in the dissection of women, who had been hanged as convicts that the surface of the uterus was spread with little grumes of coagulated blood; and that its vessels appeared much larger and even all full of this coagulated blood towards the orifices, which discharge themselves into the fundus of the uterus².

5° Littre³ has observed, in the same manner, on opening women dead in the time of their menses, "That the internal surface of the uterus was all sprinkled with holes⁴ very perceptible, and full of blood; from whence, on pressing the body of the uterus from without inwards, the blood would flow."

6° Morgagni⁴ moreover describes "the internal part of the uterus of women, who die in the time of their menses, as marked with many bloody spots, from whence it is easy to press out drops of blood."

But it is very evident, that these mouths of veins, which frize the interior part of the uterus according to Highmore; these hairs, red and tinged with blood,

¹ *Maladies des femmes grosses & accouchées*. Liv. i. cap. 10.

Observations sur la grossesse. Observat. 49.

² *Histoire de l'Academie des Sciences.* Ann. 1720. p. 16.

³ Littre adds, that he has discovered the same kind of holes of the internal surface of the uterus in women, dead, during the time of pregnancy, but much less; and from whence, instead of blood, there only came out a whitish and milky fluid. After which he endeavours to account for this supposed change in the magnitude of these holes, and in the nature of the fluid which flowed from them. But without succeeding in it. How could an anatomist, so intelligent, fail of comprehending, that these holes full of blood, which he had seen in wo-

men, who died in the time of their menses, became, in the uterus of pregnant women, in consequence of their being enlarged, those holes of a round or oval figure, of the bigness of from one line to two, which he had observed, and described himself in 1701; (*Histoire de l'Academie*, 1701. p. 293.) and that those other holes, from whence he saw drip the white and milky fluid in the uterus of pregnant women, were another kind of holes, which he could not distinguish in the uterus of women who died in the time of the menses, because they were then too little; but which became perceptible in pregnant women, by the increase of magnitude, that all the parts of the uterus suffer at that time?

⁴ *Adversaria Anat: mica.* Advers. i. §. 33. & iv. §. 27.

which make the inside of the uterus like velvet, according to Winslow; these holes, perceptible, and full of blood, with which the interior surface of the uterus is spread, according to Spigelius and Littre; these mouths, which discharge into the fundus of the uterus, according to Mauriceau; and these red spots, with which the interior coat of the uterus is marked, and from whence drops of blood may be squeezed out, according to Morgagni; are no other than the venous appendices, we have described; and which have appeared to these anatomists, more or less large, more or less long, more or less open, and more or less red, in the different subjects they have opened; and in the different states in which they have opened them.

These three questions being thus cleared up, the rest of the mechanism of menstruation displays itself spontaneously. The extremities of these *cæcal appendices* of the uterine veins, which are naturally gathered, and shut, cannot afford a passage to the blood of the uterus, in the time of the *menses*, if they be not enlarged, unfolded, and opened, by the effect of a *plethora*, or extraordinary fulness which distends them. But this *plethora* may be of two kinds; either common to all the vessels of the body; or peculiar to that of the uterus. It is therefore necessary, in order to account for the opening of the *appendices* in the time of the *menses*, to adopt, either an universal *plethora*, or fulness of the vessels; or a particular *plethora*, or fulness of the vessels of the uterus.

It is undoubtedly certain, that the universal *plethora*, or plenitude of the vessels, contributes to the copious quantity of the *menses*. Reason and experience concur to establish it; but that affords no authority for regarding this *plethora* as the cause of the *menses*, when it is considered, that they persevere often, and with constancy and regularity, in women extenuated by violent courses of physic; by watching pain, or long sufferings; in whom there is scarcely, in all the veins, a fourth part of the blood, that ought to be there naturally; and in whom consequently there is little

little room to suppose the *plethora* or plenitude necessary to produce the *menses*, if this opinion be allowed.

We are then reduced to the necessity of admitting only a local, or particular, *plethora* in the *uterus*, in the time of the *menses*: and with respect to that, every circumstance attendant on them appears strictly correspondent; and the most convincing proofs are found in the nature of the accidents, which precede, or accompany, the eruption of them. For, it is evident, that the swelling of the lips of the *vulva*; the tension and heat of the *vagina*; the pain in the *os pubis*, groins, and loins; the piles; the heat of urine, &c. which come at that time, are consequences of repletion, or *plethora*, which is then produced in the *uterus*; and communicated to the neighbouring parts.

According to some authors, this *plethora* of the *uterus*, in the time of the *menses*, must be a necessary consequence of the distribution alone of the blood-vessels in this part. They remark, that the blood, which is carried by the arteries from the heart to the *uterus*, descends in a right line; and that it must, therefore, pass more quickly, and more abundantly, than that which, in coming back by the veins, reascends perpendicularly, and consequently must rise more slowly, and in less quantity: as the cavity of the trunk of the *aorta descendens* is larger in women, than in men; and, of course, in women this trunk must convey more blood to the lower parts, than in men: that there is an almost infinite number of arteries and veins distributed in the *uterus*: that these vessels interweave, and wind about there in a thousand different manners; that they have communication with each other: that no valves are found in their cavities: that they are supported, in the internal surface of the *uterus*, only by a thin coat, free from fat; which renders it capable of yielding easily to their dilatation.

To follow their opinion, it would be inferred from thence, that the blood must pass copiously into the *uterus*; that it must come back with difficulty, and

in less quantity: that it must consequently be obstructed, and accumulated to the blood-vessels, of which the windings, and the lateral communications, tend likewise to retard its course: that it must, by this means, dilate and distend these vessels; distending them in a greater proportion, as they yield more easily to the dilatation, on account of their being supported on the outside, by a considerably thick coat: and made narrower by valves within: and that it must finally, by these several means acting conjointly in this case, cause this local *plethora*, which produces the flowing of the *menses*.

But much of the value of this opinion will be abated; if pains be taken to examine it with attention.

I. They, who maintain it, exaggerate too much the advantages they flatter themselves may be drawn from the manner in which the blood-vessels are distributed in the *uterus*. If the perpendicular direction of the artery, which carries the blood thither, and of the vein which conveys it back; or if the magnitude of the cavity of the trunk of the *aorta descendens* in women proportionably to men; must produce in women a *plethora* in the *uterus*: the like direction of the arteries, that go to the feet, and of the veins which come back from them; and the same magnitude of the cavity of the *aorta descendens*, in women; must cause in them also a plethoric stagnation in the feet; as much greater, as the velocity of blood towards the feet ought to be more rapid, on account of its being more in the direction of a right line; and the return of it ought to be more slow, on account of its being more long. Nevertheless experience evinces, that there does not happen any repletion from thence in the feet of women, nor should there consequently any happen from it in the *uterus*: these must however be admitted to be real causes of inequality in the manner, in which the blood goes to the parts and comes back from them: but these inequalities are wisely balanced by means well understood; and by these means they are reduced to uniformity.

II. They

II. They lay too much stress, in the same manner, on the number of vessels distributed in the *uterus*: the windings they make there; the *anestomases* which unite them; the defect of valves; the weakness of the coat that covers them, &c. These remarks might, perhaps, hold good, as to the state of the *uterus* in pregnant women: but they do not, as to the common state of it, in young girls, from the age of puberty, to the time of their marriage: in which period, the *uterus* is much more dense and compact than the brain, the lungs, and the greatest part of the *viscera* of the *abdomen*; and the vessels, that supply them with blood, are then less, and more compact, than in these other parts.

III. But, even if the structure and distribution of the vessels of the *uterus* in young girls, and in pregnant women, be admitted to be such as they suppose them, it could never produce any particular *plethora* there; unless it were caused by, and consequential to, an universal *plethora*. It is a truth, too obvious to require demonstration; and the more, as Dr. Friend the author, or at least the principal patron of the opinion in question, has been himself forced to grant it. On this score, a particular *plethora* in women extenuated, in whom it would be absurd to place an universal *plethora*, can not be admitted; and, consequently, these women cannot have any *menses*; which is contrary to experience; as has been observed before.

Let us, however, grant this supposition, false as it is: let us admit, since it is required, that an universal *plethora* is produced every month in women, who have the *menses*. What can they infer from it? That a *plethora* must be produced every month in the *uterus*, proportionable to that which is produced in all the other parts. This may well be: but it will not be sufficient to account for bursting the blood-vessels in the *uterus*, sooner than those in the other parts: nor for the *uterus*'s being alone affected with the periodical evacuation of the *menses*. It is necessary, in order to establish such a peculiarity of difference in this part, to

be able to prove, that there must be then produced in it a *plethora*, or dilatation of vessels, greater in proportion than in any other part of the body. But this is what they can never induce any body to believe. The brain, the lungs, the liver, the spleen, &c. are of a texture more lax, and more soft; have larger, and more vessels; receive more blood; and are more disposed to repletion, than the *uterus*, in girls of the age of puberty. Therefore, if an extraordinary *plethora* must be produced in some place, if this *plethora* must burst the vessels in some part, it is in these parts, rather than in the *uterus*; and it is in them, likewise, that the vessels would open, and the blood force a passage.

V. At least, it is very certain, that, on this supposition, the *plethora* must begin anew in the *uterus*, from the moment the *menses* have ceased: that it must augment there every day, by proportionable progressions: that it must distend the vessels half, or in a mean degree, by the fifteenth day; and two thirds, by the twentieth: and that it must, consequently, become sensible; and occasion, from that time, the same accidents, as some days later, near the eruption of the *menses*; less strong, indeed, because it is yet less great; but strong enough, notwithstanding, to be then perceptible. But this is repugnant to all experience. Women who are most subject to perceive heaviness, swelling, and heat in the *uterus*, and in the neighbouring parts, at the approach of the *menses*, never do perceive any at all, fifteen days before hand; nor even ten days. Which proves, that the *plethora* that happens in the *uterus*, in the time of the *menses*, does not begin so soon as they believe it: nor depends, consequently, on the cause which they imagine: that is to say, on the quantity of blood which is augmented in all the parts of the body, and produces an universal *plethora*.

VI. Moreover, in this *hypothesis*, there is no use made, for the explanation of the *menses*, of several parts which serve to compose the fabric of the *uterus*. I might even say further, that no application could be made of them in it: which is a very material defect.

For,

For, if it be not certain, at least it is very probable, that all the different parts, which form the organs of the body, must, each of them, to conduce in something to the mechanism of the functions which are proper to those parts. I do not insist upon the *cæcal appendices* of the uterine veins; because, I confess, they might be applied with sufficient effect, to account for the discharge of the blood, without supposing, as they do, lacerations to be made every month in the coats of the *uterus*, and of its vessels. But I do not see, they can assign the least employment, in this *hypothesis*, to the vermicular vessels of the *uterus*, which are found there, in so great number, under the internal coat; perforate this coat every where with so many holes; pour out through these orifices some particular humour into the *uterus*; and certainly must, for all these reasons, have admission, for some purpose, in the design of the author of nature, into every thing that regards the functions of these parts.

These reflections lead naturally to three important conclusions.

The first, that the local *plethora*, which comes periodically in the *uterus*; and which is the cause of the flowing of the *menses*; is made there independently of any universal *plethora*.

The second, that it can be caused there in this manner, only by a particular compression, to which the blood-vessels are subjected every month; and which interrupts the free course of the blood.

The third, that it is only the vermicular vessels of the *uterus* which can, by tumifying every month, compress periodically, in this manner, the veins of the *uterus*; since there is nothing but these vessels, which is near to, or, to speak more properly, surrounds these veins.

There only remains then to account for what may periodically enlarge these vermicular vessels every month. But that comes out naturally from the use of these vessels, according to the explanation given of it in the preceding chapter.

There

There is separated in these vessels, from the age of puberty, a lymph that is milky, and consequently thicker than common lymph. The thinnest part of this may be easily absorbed by the lymphatic veins, which take their rise from these vessels: but the thickest, and most viscid, will remain in their cavities. It is indeed, at first, only a small proportion: but, after a certain space of time, which experience shews us to be commonly one month, the quantity of it accumulated, becomes sufficient to swell the vermicular vessels, even so as to render them capable of compressing the capillary ramifications of the veins, near or around which they are placed. From hence the blood, checked in its direct course, regurgitates on the lateral *appendices*; distends; elongates; dilates; and, at last, forces them to unfold, open, and discharge the blood into the cavity of the *uterus*, into which they project.

At the same time, as reaction is always equal to action, the capillary veins, compressed by the vermicular vessels, compress them again with the same force, as they are compressed by them. The humour, therefore, contained in them being strongly pressed on the one hand; and being incapable, on the other hand, through its viscosity, of penetrating into the lymphatic veins; is forced to push forward on the excretory orifices of these vessels; to dilate them; and to open, by that means, a passage into the cavity of the *uterus*; at the same time that the blood flows into it from the venous *appendices*: which constitutes the menstrual flux, or the *menses* of women.

This discharge must last till the quantity of milky lymph, which fills the vermicular vessels, and that of blood, which fills the *caecal appendices*, are evacuated: but as soon as these vessels are emptied, they close themselves, have their orifices gathered up, and become impervious. By this means, the vermicular vessels are rendered capable of again retaining the most thick part of the milky lymph, which they separate; of filling themselves with it anew to the same degree, and nearly in the same space of time; and of reproducing

producing thus every month, by the same mechanism, a similar discharge.

It appears from hence, that this explanation is simple, agreeable to the known structure of the *uterus*, and founded on observations on the state in which the *fundus* of the *uterus* is discovered to be at the time of the *menses*: and that it does not leave any parts of the *uterus* without their proper employment in that function, in which it is fit they should all have some share. We shall find in the sequel, that it is suited to the accounting for all the facts that regard the menstrual flux in the state of health; and for all the disorders, which may supervene in the state of disease. These considerations, duly weighed, are certainly cogent reasons for determining to embrace it.

§. III. CONSEQUENCES.

From what has been already said, it may be concluded, 1°. That the menstrual blood does not flow from the *uterus*, through the pores of their coats, by a kind of transudation, or *diapedesis*. It is not quite clear, that the blood may never escape thus out of its vessels: but it is evident, that the menstrual blood, thick as it is, and flowing copiously, does not find a passage out by that way.

2°. That the menstrual blood does not pass by way of irruption from the blood-vessels into the glands, or vermicular vessels of the *uterus*, to be discharged into its cavity through their orifices. This opinion is nothing more than an *hypothesis*, arbitrarily formed, and void of the least proof; in which, moreover, there cannot be assigned any cause for the blood's being periodically, every month, compelled to take these new courses in the glands. In short, it must be admitted, according to it, that a real inflammation is made every month, during the *menses*, on the whole interior surface of the *uterus*: for such a supposed irruption of blood into the lymphatic glands would be actually so. But this supposition not only offends against probability, but is absolutely falsified by experience.

3°. That

3°. That the menstrual blood does not flow from the arteries, but from the veins. If even the structure of the vessels of the *uterus*, and the consequences that may be inferred from it, were still unknown, at least it would, in all cases, be certain, that the coats of the arteries are stronger, thicker, and more compact, than those of the veins ; and that would be sufficient to shew, that they are capable of resisting causes of dilaceration, to which those of the veins must yield ; and therefore, *cæteris paribus*, it is from the veins that the discharge of blood must be made in the *menses*.

4°. That the menstrual blood does not flow from the extremities of the veins, through places torn or divided by violence, but from their *appendices* opened without dilaceration. As the menstrual flux is a proper part of the plan of nature, it must be made by vessels capable of opening of themselves without dilaceration. What ground of apprehension for the *uterus* would there not be given from such an infinite number of lacerations, that would be renewed every month during near forty years : since we see, that the spittings of blood from the *thorax*, less great, and less often repeated, are in the sequel almost always followed by ulcerations of the lungs ?

5°. That the periodical flowing of the *menses* is not the effect of any latent ferment in the *uterus*; nor of any fermentation which is produced in its vessels. The opinion, or rather the *hypothesis*, refuted here, was commonly received, and with applause, in the last age. It was indeed a time when *hypotheses* were in request; and when an opinion, like this, was very well suited to gain a favourable reception. But at this time a greater nicety in these matters prevails ; and there ceases to be any disposition for admitting, without proof, a supposed ferment in the *uterus*, to account for the periodical returns of the *menses*; which may be explained in a manner more simple and more conformable to the real state of the *uterus*.

6°. Finally,

6°. Finally, that the return of the *menses* does not at all depend, either on the *phases*, or influence of the moon. This opinion is still more absurd than the former. It has, however, been in vogue in its time: but it is certain, that was a time of ignorance, and credulity; whereas the precedent opinion has only prevailed since the beginning to adopt the principles of natural philosophy of Descartes; that is to say, in a time which boasts of being enlightened, with relation to that branch of science.

§. IV. *Explanation of the facts which respect the menses.*

The same order will be observed in the explanation of these facts, that has before been observed with relation to the preceding: so that the numerical divisions of this article will correspond with those of Article I.

I. The humour, which is separated in the vermicular vessels of the *uterus*, is in small quantity, and scarcely any thing but lymph, till the age of fourteen; for the reasons, which are assigned in the foregoing chapter. So that, till such age, this humour is entirely taken up again by the lymphatic veins, which rise from these vessels, without any thing remaining that, by the tumefaction of them, can occasion a compression of the uterine veins; or cause thence the least discharge of the *menses*. But towards the fourteenth year a change of these matters happens. On the one hand, it is then separated in greater abundance: and, on the other, it becomes more thick; as has been shewn above in the same chapter. So that the lymphatic veins are not then sufficiently numerous to absorb the whole: while, moreover, their smallness allows them only to absorb the most liquid part. The rest, that will be always the most thick part, stagnates in the vermicular vessels; which, in consequence of being then dilated by it, compress at last the neighbouring veins; and produce thus the first eruption

of

of the *menses*, by the mechanical effect we have above displayed.

The time of this eruption must of course be various : and it does vary accordingly in different subjects. It happens before the fourteenth year in girls, who begin to leave off growing sooner ; are very sanguine, and plethoric ; lead a sedentary and inactive life ; have the texture of the fibres, and especially that of those of the *uterus*, lax ; and in whom their imagination is early heated with amorous desires by the effect of constitution, reading, conversation, example, &c. It does not happen, on the contrary, till after fourteen in girls, of whom the growth is more slow ; who are inured to hard labour ; or to a slender diet ; in whom the texture of the fibres of the *uterus* is more close and more dense ; who are modest by constitution, education, &c.

II and III. The return of the *menses* can be expected, only when the vermicular vessels find themselves again full of the milky lymph, to compress the neighbouring veins with such a degree of force, as is necessary to cause the lateral *appendices* to open. Because it is evident, that there must be a certain time allowed to give to these vessels this degree of plenitude : and experience has shewn, that this time must be one month. The evacuation of the *menses* can, therefore, return only once in a month : but it must return once every month, in a regular periodical order.

This does not, however, hinder, but that the *menses* may return sooner, and more often in women who eat much, use little exercise, have the texture of the *uterus* lax, and the resistance of the vessels slender ; and in whom the *uterus* is often heated, and above all excited to lively contractions, &c : and that, on the contrary, they may not return so soon, and less often, in hard working women, who are more temperate in their living, have the *uterus* more contracted, and supplied with vessels that are less and more compact ; and are, moreover, exposed more rarely to contractions, and to such motions only as are gentler.

IV. The flowing of the *menses* can only continue at each return, till such time as the milky lymph, which fills the vermicular vessels, and the blood that is accumulated in the *cæcal appendices*, and in the veins from whence these *appendices* spring, are exhausted; and from hence arises the reason, why the continuance of the *menses* is so variable. If the quantity of these humours accumulated be small; the discharge made by orifices much dilated, and happening at the same time through the whole extent of the *uterus*; the *menses* must in such cases be of short duration. They must, on the contrary, last a long time, when these humours are accumulated in great quantity; and escape only through little apertures; and when the discharge is made successively in different parts of the *uterus*. It is, nevertheless, true, that experience has fixt the ordinary duration of the *menses* to be from three days to six: and this calculation suffers few exceptions, at least in a healthful state of the subject.

V. To judge of the manner in which the *menses* are discharged, attention must be given both to each of the vessels of the *uterus* in particular; and to the whole of them taken together. If the particular vessels be considered, each begins to open, and its opening enlarges by degrees; becomes as great as it can be, and diminishes afterwards, till the vessel be again closed. If the same vessels be considered in a collective view, some of them open first; the number of those which are opened increase little by little, become as great as is possible, and diminish afterwards in the same order. Thus, in whatever manner the vessels, through which the discharge of the *menses* is made, be considered, it is evident, 1°. This discharge must have three regulated divisions of time; that of *augmentation*, commencing from the moment it begins; that of the state where it is in the greatest degree; and that of *diminution*, which leads at length to *cessation*. 2°. The duration of each of these divisions must generally correspond, with some degree of exactness, to the total duration of the discharge.

VI. Nothing is more uncertain, than the quantity of blood which is discharged by the *menses* at each return: because this quantity is liable to vary, according to the greater or less abundance of the blood in the body; according to the state of the veins of the *uterus*, with relation to their being more or less large, more or less distended, and more or less full: according to the state of the orifices of the *cæcal appendices*, with respect to their being larger or smaller, and more or less open, or shut; according to the proportion of number in which these *appendices* open themselves at the same time; according to their being open a longer or shorter time; or according to the celerity with which the blood, that finds a passage through them, flows, &c. Nevertheless, experience seems to determine, that the quantity of the *menses* is seldom under six ounces, nor above eight; at least in a well established state of health: and it may be safely confined within these bounds, without danger of any considerable error.

I am not, however, ignorant, that Hippocrates¹ has fixed this quantity to two *κότυλαι*, or *heminæ Atticæ*; and that these two *heminæ* are usually estimated, as equal to twenty of our ounces. But we may justly conclude, either that this valuation of the *heminæ Atticæ* is not just; that the observation of Hippocrates is not very accurate; or that the women, who were the subject of this observation, had the *menses* in greater abundance than those known to us.

VII. In the women, with whom the resistance of the vessels of the *uterus* have a certain degree of mediocrity; that is to say, in women who are healthful, and of a good constitution; the *cæcal appendices* must resist with a certain degree of force to their dilatation and opening; and this resistance must, also, in propor-

¹ Μέτρα δ' οἱ τάσιν γυναικὶ χωρέειν, ἦν σγιαῖνη, τὰ ἐπιμενία ἐλθόντα ὅσον κολύλαι δύο Ἀττικαῖ, η ὀλίγῳ πλείονα, η ἐλάσσονα.

Omni mulieri, si sana sit, pro-

deentes menses moderati sunt, qui ad duarum Atticarum heminærum mensuram, aut paulò plures, aut pauciores. Hippocr. Lib. i. De morb. mulier. cap. 15. tion,

tion, produce, and accelerate their contraction, and closing. There ought, consequently, to be in such women, a pretty regular proportion, but in a reversed order, betwixt the progress of the augmentation of the *menses*, and the progress of their diminution : which is, indeed, most commonly found.

This rule suffers, nevertheless, two opposite exceptions in the two cases of the extreme : the one, when the resistance of the *appendices* is too weak ; for then the *menses* augment quickly, but diminish slowly, and with difficulty : the other, when the resistance is too strong ; for then they augment with difficulty, and slowly, though they diminish very fast.

VIII. The duration, and the quantity of the *menses*, are generally nearly equal at each return ; because, generally the compactness, and resistance, of the *cæcal appendices*, are nearly the same, in the whole extent of the *uterus*, in the same subjects ; and, therefore, every thing else remaining equal, the same number of *cæcal appendices* must open at each return, and in the same degree ; which must furnish the same quantity of blood ; and that nearly in the same time. But this uniformity cannot subsist, if there happen to be any difference in the compactness, and the resistance of the different *appendices* of the *uterus* : for, in order to force those which may be more lax, it suffices, that the vermicular vessels, which surround them, should be full of the milky lymph accumulated for a month ; instead, that it is requisite, the vermicular vessels, placed near *appendices* of a more tense texture, should be doubly filled ; and, consequently, by a lymph accumulated for two whole months, in order to force them. In these women, therefore, there will be alternately, sometimes *menses*, that are short in duration, and small in quantity ; because they are furnished by those *appendices* solely, that are most easy to be opened ; and sometimes *menses*, which are more long and more abundant ; because they are furnished, both by these *appendices* ;

dices; and by those others, which were not opened the preceding month.

There are even women, in whom certain of the *appendices* are so tense, and so contracted, that the milky lymph has occasion to accumulate itself during three months in the neighbouring vermicular vessels, to force them to extend and open; and from thence it happens in some women, that after two returns of the *menses*, moderately uniform, there comes periodically a third¹, which is more abundant, and more long: because that they flow from a greater number of *appendices*. The truth of the explanation, we have been giving, is proved from that the women who have the *menses* most in quantity, or at a longer distance than two or three months, are never in perfect health, except after the most copious return of them; because, it is only then, that all the vessels of the *uterus* are intirely disgorged: whereas, after the moderate returns, they continue to feel themselves heavy, and to be subject to habitual pains of the reins: which sufficiently evinces, that there remains in the *uterus* a fund of *plethora*, which overloads it.

IX. As the compactness, and the resistance of the *cæcal appendices*, are nearly uniform through the whole extent of the *uterus*, in women who are healthful, and of a good constitution, they must generally all open at the same time; or at least nearly one to the other; and in a succession sufficiently equal to support an uniform discharge, or such, however, as is continual from the beginning to the end. It may happen, nevertheless, and it sometimes does so, that the compactness and the resistance of the *appendices* vary enough, in the different places of the *uterus*, to occasion, that

¹ Καὶ ταῦς μὲν συνεχῶς καθ' ἕκαστον ἀλυγάνει τὰ καλαμίνια φύγει: ταῦτα μῆτρα δὲ τρίτον ταῦς αλεῖσας.

Lib. vii. *De Histor. Animal.* cap. 2.

Hoc malum (menstruatio) tricenis diebus in mulieribus existit, & trimestri spatio largius. *Plinius, Histor. natural.* Lib. vii. cap. 15.

Rarò singulis mensibus menstrua consertim fluunt: mense vero tertio pluribus. *Aristoteles.*

Some will only open, when the others are already closed: because, in order to make them open, there must be a greater degree of fullness in the vermicular vessels; and then the *menses* will flow at two different times; and the intervals be longer or shorter, according as the difference betwixt the compactness, and the resistance, of the *appendices*, is greater or less. If the number of *appendices* least closed, and which open the first, is greater than that of the others, the first discharge will be the most considerable: but it will be the contrary, if the number of *appendices* most closed, exceed that of the others.

X. The blood of the *menses* is veinous; and does not at all differ from the rest contained in the veins; or differs, at most, only in the admixture of a very little quantity of the milky lymph, which is discharged from the vermicular vessels, that is of itself pure and laudable in a state of health, and consequently cannot alter the purity of blood with which it is mixt. It is, therefore, with great reason, that Hippocrates¹ assures us, the blood of the *menses* is intirely like that which flows from a victim that has its throat cut. The only matter of wonder is, such a number of physicians², and natural philosophers, have attributed so many bad qualities to it, for want of having distinguished what relates to this blood, in certain circumstances, where it is corrupted, from what relates to it while it continues in its natural state.

XI. It has been already remarked more than once, that in the flowing of the *menses*, there is discharged both the blood of the *cæcal appendices*, and the milky lymph of the vermicular vessels; that these two hu-

¹ Χωρέει δὲ αἷμα, οἷον ἀπὸ λεγίσις, καὶ ταχὺ πηγυλαῖς, οὐ υγράνη γεννηταῖς.

Prodit autem sanguis qualis ē victimā, & citō concrescit, si mulier sana sit. Hipp. Lib. i. De morib. Malier. cap. 15.

² Columella, De rusticā. Lib. xi. cap. 3.

Palladius, *De reruſticā*. Lib. i, titul. 35.

Plinius, *Hiftor. Naturalis*. Lib. vii. cap. 15.

Ælianuſ, *de Animalibus*. Lib. xi. cap. 3.

Solinus, *in Polybiſtore*, cap. 4.

Fernilius, *Physiologia*. Lib. vii. cap. 7.

mours commix with each other; and that, together, they constitute the discharge of the *menses*. When the *cæcal appendices*, and the vermicular vessels, open, and close themselves at the same time, the lymph, and blood, begin, and cease, to be discharged together; which occasions, that the lymph, being tinged by the blood, cannot be distinguished: as is really the case in healthful women. But if, by chance, any vermicular vessels open in some women sooner than the *appendices*; if, on the contrary, in others, part of the vermicular vessels close themselves later; or if, moreover, in some, a portion of the vermicular vessels open sooner, and close later; it will happen, in the first case, that the discharge of the *menses* will be preceded for some hours by a lymphatic discharge; that it will be, on the contrary, succeeded by such in the second; and that in the third, it will be both preceded, and succeeded, by it. Instances of each of which three cases are not rarely found.

XII. In women with child, particularly in the last months of their pregnancy, the milky lymph of the vermicular vessels, and the blood of the *appendices*, are employed to nourish the *fætus*. There cannot, consequently, be any menstrual discharge in pregnant women; especially in the last six months.

XIII. In women who give suck, particularly in those who abound with milk, all the milky lymph is carried to the breasts: which occasions, that there is not any separated in the *uterus*; or, at most, not enough to produce the *menses*.

In peasants, and hard working women, there is little chyle made; because they are ill fed; and that, which is made, is consumed by labour. The lymph of the *uterus* must, therefore, in such women, be small in quantity; not very milky; and, consequently, not well suited to procure the *menses*. I question, nevertheless, whether this be a sufficient cause for an absolute and constant suppression of the *menses*, such as may be sometimes observed in some of these women, at least where there is not joined to it a natural

ral compactness of the *uterus*, that puts it in a condition to resist the dilatation of the vessels: which, although it is periodically made in these women, can only be made weakly.

XIV. Finally, the evacuation of the *menes*, after having prevailed during thirty, or thirty-five years, ceases of itself towards the forty-fifth, or fiftieth year; which arises from two causes that jointly concur; and that are the necessary consequence of age. The one, that the lymphatic humour of the *uterus* is then less abundant, and less milky; because the action of the stomach is weakned, and does not make so much chyle: from whence it results, that the vermicular vessels are not enough dilated, to stop the course of the blood in the veins. The other, that the fibres of the veins of the *uterus*, and particularly those of the *cæcal appendices*, have acquired, towards this time, too much rigidity, and inflexibility, according to the nature of tendinous fibres; of which it is a property to grow hard by age: which occasions, that these *appendices* are no longer in a condition to be extended, unfolded, or opened, as in their common state. Thus, the force, which produces menstruation, lessening, daily, on one side, and the resistance, which opposes menstruation, increasing in proportion on the other, it must result, that the *menes*, after having diminished little by little; after having been often retarded; and after having sometimes failed, at last intirely cease.

As the time, when the *menes* begin, varies in different subjects; that, when it ceases, varies not less. In general, these variations depend on that condition of the fibres, and the vessels of the *uterus*, with respect to their being more or less closed, with which the person is born; on the quality and abundance of the food with which they are nourished; on the more or less laborious life which they lead; on the health they have enjoyed, or the diseases to which they have been subject; on the more or less frequent child-bearing they have undergone; on the hotter or colder temperature of the climate where they have lived,

&c. For it is evident, that the degree, or application, of these different causes, and of their combinations, may contribute to retard, or to accelerate the inevitable effects of old age.

§. V. *Explanation of the symptoms of menstruation.*

These different symptoms, of which we have enumerated the principal in the XIIIth article, are so naturally deducible from the theory, we have above established, that they seem to afford a new proof of the truth of it.

1°. As the vessels of the *uterus* are replete with blood, at the approach of the *menses*, it is a necessary consequence, that such as is brought there anew by the spermatic, hypogastric, and internal hæmorrhoidal arteries, cannot be easily received by them; and that it will be compelled to turn off, as to the greatest part, by the collateral branches of these arteries, which go to be distributed in the ovaries, broad ligaments, round ligaments, tendinous and muscular parts of the *hypogastria*, *vagina*, lips of the *vulva*, and *anus*. Thus the surcharge of blood, which happens from thence in these different parts, must produce there a painful tension, more lively, or more dull, according to the repletion of the *uterus*: and it is from thence that arises the pain of the *pubis*, and the groins, and kidneys, or rather loins: the numbness of the breech; the swelling of the lips of the *vulva*, or the pimples which rise on these lips; the tension, heat, and sensibility of the *vagina*; the internal, or external piles, &c.

2°. The more the *uterus* is swelled, and heated, at the approach of the *menses*, by the blood which is accumulated in its vessels, the more it must compress and heat the bladder with which it is closely connected; and also, at the same time, the urine that is contained in it. From thence results the heat of urine that happens at the approach of the *menses*, what-

whatever cause it may be attributed to by some : whether only to the heat communicated to the urine ; whether only to the increase of sensibility, that the heat of the *uterus* causes in the neck of the bladder ; or whether, as is most evident, to the concurrence of these two causes, which are both really existing. From thence comes, also, the frequent need of making water, to void only a small quantity at each time : whether this need be attributed to the lessening the bladder ; which cannot, under these circumstances, extend itself sufficiently, because it is compressed by the *uterus* ; to the heat of the urine, which occasions, that it irritates the neck of the bladder in a more lively manner ; to the sensibility of this neck, which the heat of the *uterus* augments, and which makes it feel, more vividly, the action of the urine ; or to these three different causes, which, being then conjoined, act all together.

3°. Sometimes, at the approach of the *menses*, the urine will be opake and thick, which happens in women, with whom the eruption of the *menses* is preceded by a lymphatic discharge, that renders the urine turbid, by mixing with it, as it flows out. At other times, it is voided clear ; but becomes turbid, and thick, sometime after, on growing cold. This happens, because some small quantity of the milky lymph, which cannot be separated so easily in the vessels of the *uterus*, on account of their too great fulness ; and is compelled, for that reason, to remain in the blood ; is filtered, promiscuously, with the urine in the kidneys ; which does not alter the transparency, so long as the heat keeps the parts sufficiently attenuated ; but renders the urine thick and opake, as soon as these parts begin to approach each other, to unite, and to precipitate in the urine as it grows cold. For this reason it often happens, in the case of persons who eat much, that the urine, which they make, in the time of digestion, is charged with some chylous parts, that cause it to become milky on cooling.

4°. If it be granted, that the vermicular vessels of the *uterus* are full of milky lymph at the eve of the *menses*, it must be admitted, also, that they are not then in a condition to receive a fresh quantity. It follows, therefore, that such as is continued to be formed, must remain in the blood. But, in consequence of being accumulated there, it must, at length, mix with the greatest part of the lymphous, or serous humours. This is what we have already remarked, with relation to the urine; and what we shall remark, hereafter, with respect to several other humours. But it must, above all, be mixed, and that very abundantly, with the milky lymph of the breasts, with which it has a perfect analogy. It is from hence, that the *vesiculae* of the breasts, where this lymph is separated, are then so full; and it is this which causes the tension and swelling of the breasts, that always precede the *menses* in all women while they are young.

5°. In women who are plethoric, the blood must regurgitate into all the parts at the approach of the *menses*; and this must particularly happen in the soft parts; as the lungs, the brain, &c; either because the blood-vessels are more disposed to dilate in these parts; or, because the repletion of the *uterus*, which shortens the course of the blood towards the inferior parts, must augment it as much in proportion towards the superior. Thus it is from this particular compression, that the lungs suffer at such time; and that those oppressions and choakings arise, which happen twenty times, in as many hours, in some women, for a day, or sometimes two, preceding the *menses*.

6°. The blood, which overloads the substance of the brain, at the same time, and from the same cause, produces there, in different subjects, two very different effects. When it is thick or serous; and the beating of the arteries is slow, rare, and weak; it does nothing more than load, or relax, the fibres of the brain, which causes a drowsiness. On the contrary, when it is thin, hot, dry; and the pulsations of the heart, and the arteries, are brisk, frequent, and

strong; it agitates and parches these fibres; and produces then an *insomnia*.

7°. In either of these cases, the blood which surcharges the brain, ought equally to cause the headache, but an headache of different kinds: of which the pain is gravid in the first case; and distensive, or divulsive, in the second. Thus we find, that there are women who complain, at such times, of having the head dull, and heavy; while there are others, who talk of nothing but tearings and shootings in the brain.

8°. As in all women, the *uterus* is distended, and swelled in the time of the *mensæ*; and as there are some in whom it is so, to such a degree, as to render it painful; the sensations which are perceived there, from time to time, must make the spirits flow back, towards the brain, with force, even during sleep; and must, from thence, give rise to those unquiet and frightful dreams; and wakings in starts; especially in women, who do not sleep soundly; who have a very lively imagination; and in whom the *uterus* is exposed to attacks of the cholic in the time of the *mensæ*.

9°. The different accidents, which precede the *mensæ*, depend all on the repletion of the blood-vessels of the *uterus*. For, as to that which is made insensibly, and by slow degrees, in the vermicular vessels, the smallness of those vessels prevents it from being ever considerable enough, to be able to produce any very perceptible effect. But the blood-vessels of the *uterus* are replete only in the last days, when the vermicular vessels have attained their greatest degree of plenitude. It is, therefore, evident, that these accidents can only appear a few days before the eruption of the *mensæ*; which experience confirms; since they never happen, except a day or two before the *mensæ*, in women with whom the veinous *appendices* are easily opened, and yield, without difficulty, to the compression of the vermicular vessels; and scarcely ever sooner than three or four days, at most, in those, with whom

whom these *appendices* have greater resistance; and are more difficult to be opened.

§. VI. *Uses of menstruation.*

It results from what has been said,

I. That the menstrual flux must, every month, dilate, swell, and enlarge the *uterus*: from whence may be inferred, that it facilitates conception. For we shall see below, that it is necessary for conception, the *uterus* should be rare, porous, and disposed to suffer itself to be penetrated by the seminal parts.

II. That the menstrual flux must, every month, extend, elongate, and supple the *lateral appendices* of the veins of the *uterus*; from whence may be deduced, that it serves to facilitate the union of the *placenta*; and, consequently, of the *fætus* with the *uterus*. For we shall see below, that these *lateral appendices*, which lengthen in *utero-gestation*; and insinuate themselves into the *placenta*, form the principal connections that unite the *fætus* with the *uterus*.

III. That the menstrual flux ought every month to unfold and open the orifices of the vermicular vessels; and the veinous *appendices* of the *uterus*: from whence it follows, that it serves to facilitate the passage of the *fætus*. For we shall see below, that it is, by these orifices of the vermicular vessels, and extremities of the veinous *appendices*, the *fætus* receives the milk, and blood, by which it is nourished.

IV. That the menstrual flux must, every month, support, and augment, the suppleness and resistance of the fibres of the *uterus*: whence it follows, that it serves to facilitate delivery. For, we shall see below, it is necessary for delivery, that the fibres of the neck of the *uterus* yield, and be elongated; and that those of the *fundus* close, and contract themselves.

It is evident, therefore, that the menstrual flux is very useful; let us even say necessary, for generation: and that it is not, without reason, the author of nature has subjected all women to this inconvenience: since it is only, by the advantages it procures, that

women

women can hope to conceive; nourish the infant they have conceived; and be happily delivered of it.

In this, experience is found perfectly conformable to reason. It is rare, not to say impossible, that women who have never had the *menses*; or who no longer have them; become pregnant, or at least conserve their fruit, and are happily delivered of it. One may quote, on this head, a common proverb, which says, that *qui ne fleurie pas, ne graine pas*; which is, "that women, who have no flowers, or *menses*, can have no fruit or children."

The example of the females of other animals, which they oppose commonly to this reasoning, far from proving, that menstruation is not necessary, serves, on the contrary, to shew the absolute necessity of it. I shall wave alledging, as an answer to it, the particular instances of the females of monkies, and of some other animals, in whom a menstrual flux is observed, like to that of women. I believe myself to be master of a reason, infinitely more conclusive, in maintaining, that, since the females of all animals have a lymphatic and bloody discharge during the time they are *venereally* hot, they have all the true periodical *menses*. It must be confessed, that these *menses* do not return oftner than once or twice in a year: and also, that they are only in a small degree bloody: but such as they are, they are yet *menses*; and *menses* proportioned to the particular needs of each of these animals; and which produce in them the same advantages, as the more abundant *menses* produce in women.

It is from hence, one may account for some women who have conceived, and become mothers, even of several children, without having ever had the *menses*. There is great room to believe, those who relate these accounts, had not the attention to examine, with care, the condition of the women of whom they pretend to have given them. They perceived, that these women had not a copious discharge of blood, such as other women generally have: and this induced them to say, they never had any *menses*

ses at all. It is scarcely a doubt, nevertheless, but that they had periodically a discharge of milky lymph, tinged with blood ; and this was *menses* sufficient enough to render them fecond, allowing for their natural constitution, their way of living, the conformation of their *uterus*, &c : as similar *menses* suffice in the females of other animals.

We may go yet further, and suspect, that it is in this manner the *menses* are had in all those peasant girls, hard working women; and, moreover, those others whom they pretend have never had any without being affected in their health, and whom they signify commonly by the Latin word *viraginiæ*; as meaning that they partake, in some manner, of the nature of men. It is thus, in matters of natural philosophy and medicine, the more we examine and find, we must diminish the number of prodigies ; the more reason we have to be convinced, the rules established by nature are always very general, and very invariable.

There is little wanting, even that, in order to establish a more general uniformity in this point, I should be tempted to believe, that the abundance of the *menses*, such as is observed, for the most part, in women, is not the primitive institution of nature. We know, that, most commonly, women in the country, who eat sparingly, have less *menses* than those, who, living in towns, feed more plentifully. The greatest part of travellers relate, that, among wild nations, the women have no *menses*, or only very little of them. Lery¹ says it of the women of Topinambos : Charleton², of the women of Tapnias, in the Brazils : Pechlin³, of the women of Greenland. This seems to give room to think, that the same ought to be general in all women ; that those, who have continued to live in the first simplicity of nature, continue also to enjoy those advantages which nature had granted them ; and

¹ Johannes Lery, *Navigationis in Brasiliam*, cap. 16.

⁴ Ubi laudat Johannum Stadium.

² *De causis Catameniorum*, cap. Lib. i. Observ. 34.

³ *Observat. Physico-Medicar.*

that if the women of nations, which are called *civilized*, are, on the contrary, subject to the *menses* more abundantly, and with greater trouble; it is only because luxury, and the excesses of the life they lead, pervert their natural constitution; and multiply, or augment, their infirmities.

C H A P. III.

*Of the first eruption of the menses; and
of the accidents which precede, or ac-
company, it.*

§. I. DESCRIPTION.

IN the girls, who have attained the age of puberty; and in whom the first steps of nature, to procure the eruption of the *menses*, already take place; the *uterus*, and the different vessels by which it is supplied, and this eruption must be made, may be in five various states: each of which may be regarded as a simple state; supposing that it is found alone in the whole extent of the *uterus*. But, as several of these various states may concur together in the *uterus*, although in different places; as they may then severally be in unequal degrees; and as each may occupy spaces, more or less extended; there must result from these different combinations, several new states of the *uterus*: which must constitute as many new kinds of inconveniences; or, at least, as many particular symptoms.

We propose to explain particularly here only the five first states; which we shall consider as simple. For, as to the other more compound states, which are in a considerable great number, it will suffice to have pointed them out; because their theory, and their manner

manner of cure, may easily be deduced from those of the simple states: and nothing more is wanting, than to apply to them the explanations, and the intentions, that will be proposed for each of the simple states, which form them by their concurrence.

FIRST STATE.

In this state, every thing in the *uterus* has the requisite suppleness, and dilatability; as well with respect to the vermicular vessels, and their orifices; as to the veins, the venous *appendices*, and their extremities; in such manner, that these several vessels are filled, swelled, extended, opened, emptied, and reclosed together in the proper time and order. From whence it follows; 1st, That, in this state, the *menses* must begin to flow with facility, free from accident, and pain: because the vermicular vessels, and venous *appendices*, fill, open, empty, and close themselves easily; and the mechanism of menstruation must be performed without trouble; and, consequently, without pain, or any accidents.

2dly, That the *menses* must be, at the beginning, a little less copious: either, because then the venous *appendices* are not sufficiently dilated; or their extremities not sufficiently open; or the whole number not yet opened at all.

3dly, That the *menses* must return a little later; and continue a shorter time: which results, either, from that the milky humours, which is less copious, fills more slowly, and in a less degree, the vermicular *appendices*; or, the venous *appendices*, which have not acquired all the necessary flexibility, are dilated more difficultly; and of course more slowly, and in a less degree.

4thly, But that gradually, and in a short time, every thing must pass into regular order, with relation to the quantity, period, and duration of the *menses*: and that these girls must have them, with perfect regularity, within the space of six months, excepting any casual accident.

This

This state of the *uterus*, and its vessels, is scarcely ever found, except in those girls; 1°. Who are large and perfectly made; who never had, in their infancy, either swellings in the glands; scrophulous tumours; nor habitual disorders, or infirmity; who have not been rickety; &c.

2°. Who have a sanguine constitution, and a disposition naturally gay and joyous; have fed wholesomely, but simply; have not any obstruction, either in the *uterus*, or any of the other *viscera* of the *abdomen*; and in whom the stomach is good, and performs digestion well.

3°. In whom the *menses* only begin to appear towards the fifteenth year, when the parts of the *uterus* have had time to acquire the disposition necessary to yield itself to the operation of nature, without the eruption of the *menses* being provoked before the due time, by hot medicines, touches, or lascivious fancies.

4°. In short, who have the breasts already formed, which, as we have observed in the first chapter, evinces, with respect to the *uterus*, a similar disposition, that ought always to precede the first eruption of the *menses*, in order that it should be easy and natural.

SECOND STATE.

In this state, the vermicular vessels of the *uterus* being too compact, hard, and small, resist, on one hand, the entrance of the milky lymph; and, on the other, the veins of the *uterus*, and their *appendices*, being too small, too firm, and too much comprest by the close and compact texture of the *uterus*, resist, also, to the distension, which the blood should produce there.

In comparing this state with the known mechanism of menstruation, it is easy to conceive; 1°. That the effort, which nature sometimes makes in girls, in order to the eruption of the *menses*, must be in vain: since there is nothing in readiness, either with relation to the vermicular vessels, which are not sufficiently disposed to be filled with the milky lymph, nor

nor with relation to the venous *appendices*, which are not sufficiently extended, to admit of being opened.

2°. That this effort of nature cannot even manifest itself in these girls, either by heavinesses, swelling, or gripings in the *uterus*; or that, at most, these effects can be only slight: since the vessels of the *uterus* are not tumefied; at least not sufficiently, to cause sensible distensions.

3°. But that it must appear, by many other accidents: which all depend, either on the quantity of milky lymph, that then abounds in the blood, because it cannot be received in the vermicular vessels or on the quantity of blood which regurgitates, at that time, in the vessels; because it cannot be evacuated by the discharge of the *menses*.

4°. That, on one hand, the milky lymph, by combining itself with that which is separated in the *vejiculae* of the breasts, and is of the same nature, increases the quantity of it; and thence gives rise to the tension and tumefaction of the breasts.

5°. That the same lymph, by combining with the *saliva*, diminishes it, and perverts even its action, which causes a disgust to common food; and the depraved taste for odd things, known, among physicians, by the name of *pica* and *malacia*.

6°. That the same lymph, in uniting with that of the stomach, which serves as a ferment, weakens the effective qualities of it; and brings on frequent indigestions, of more than one kind; according to the nature of the food.

7°. That, on the other hand, the blood which is accumulated in the body, must distend, and cause a repletion in its own vessels, particularly in the soft parts; which are, of course, in a state of less resistance.

8°. That this repletion, when it happens in the lungs, produces frequent oppressions and choakings, and sometimes spittings of blood.

9°. That a similar repletion in the inside of the head, accordingly as it is made in the substance of

the brain, or in its membranes; and as the blood is thicker or thinner; causes pains of the head, either gravid, or divulsive; faintings; watchings; convulsive motions; and epileptic fits.

10°. Finally, that such a repletion in the coats, or the substance of the muscles; or in the fat covering, which is under the skin; gives rise to spontaneous lassitudes and swellings of the feet in the day time, and of the face in the night.

This state is usual in girls; 1°. Who are of a dry constitution, in whom the texture of the solids is firm and close; and who have the *uterus* little, dense, and compact.

2°. Who have obstructions in the *uterus*, or the *viser*a of the *abdomen*; who have the blood infected with scrophulous levan; and who have been rickety in their infancy, or subject to diseases, or, at least, infirmitiess.

3°. In whom the *menses* are less produced by the disposition of nature, than by the action of medicines administered improperly; or by handling, reading, or conversations tending to incite the passion of love.

4°. Finally, who have been ill fed; who have indulged the irregular appetite they may have had for odd things; and who have given way to a pleasing reverie, which is the consequence of their condition; or to an habitual melancholy; which is supported by real or chimerical disappointments.

THIRD STATE.

In this state, the vermicular vessels are fitly disposed to the entrance of the milky lymph, and are filled with it: but their orifices refuse to open, that it may be discharged periodically: the veinous *appendices* dilate also; and are swelled by the stagnation of the blood, which the compression of the vermicular vessels obstructs there; but their extremities do not unfold, nevertheless, to suffer it to be evacuated in the time of the *menses*.

It is evident, 1°. That, in this state, the girls will have all the accidents which precede and accompany the *menses*: since the milk and blood-vessels of the *uterus* are as full, as they are at the approach of them. These accidents will be often even greater, and always more obstinate, than in the common *menses*, because the plenitude of the vessels is then often greater; and lasts always longer.

2°. That the girls will, in this state, be greatly exposed to vapours; and to such as are truly hysterical, because, the painful sensations which are produced in the *uterus*, must produce convulsive motions in the different parts of the body, by the mechanism, which we shall explain in its proper place, in speaking of the hysterical passion.

3°. That in general this state will bring on all the accidents, which happen in the second state, either as they take their rise from the quantity of the milky lymph that abounds in the blood; or as they depend on the quantity of blood with which the body is replete; since, in this state, the milky lymph and the blood must regurgitate, in the same manner, for want of passage.

4°. That this state may particularly cause both varicous dilatations in the veinous *appendices*, in consequence of keeping them too long, and too much dilated; and schirrous obstructions in the vermicular vessels, in consequence of making the milky lymph stagnate in them too long a time: which must, last, thicken there, and cohere to them.

This state of the *uterus* is commonly found in girls
1°. Who have naturally the orifices of the vermicular vessels, and the ends of the veinous *appendices*, too much contracted, close, and hard; which occasions them to resist too much to their expansion.

2°. Who have the internal coat of the *uterus* too thick and dense; which occasions it to close, too much, the orifices of the vermicular vessels, and the ends of the veinous *appendices* which pass through it.

3°. In whom, though they have been for soime time in the second state, the cavities of the vermicular vessels, and veinous *appendices*, have been gradually dilated, by the effort of the milky lymph, and of the blood; but without letting their orifices yet give way to it.

FOURTH STATE.

In this state, the vermicular vessels are filled with the milky lymph; and the veinous *appendices* with blood; as in the third state. All the difference is, that the extremities of these *appendices* open at last periodically, and discharge the blood into the *uterus*; while the orifices of the vermicular vessels remain obstinately closed, without suffering the lymph, of which they are full, to flow out.

From hence it is easy to see; 1°. That, in this state, the *menses* will be very copious: because the vermicular vessels, that continue always full, constantly compress the veins; which obliges the blood to turn in a greater quantity towards the open *appendices*.

2°. That the duration of the *menses* will be longer than ordinary: because the constant compression of the vermicular vessels will longer turn off the blood in the veinous *appendices*; and keep their extremities longer open.

3°. That the returns of the blood will be more frequent: because the vermicular vessels, which do not empty themselves, keep the neighbouring veins in an habitual state of compression: which suffices to give rise, shortly, to a new repletion of the lateral *appendices*; and to a fresh discharge of the *menses*.

4°. That the *menses* will degenerate often, in this state, into a kind of flooding; and this ought to be apprehended, every time they flow more copiously, be longer protracted, or return more frequently than proper.

5°. That, consequently, such girls must be in a short time extremely weakned, emaciated, and faint,

by copious, long, and frequent *menses*; which very often degenerate into an habitual flooding.

6°. That, on one hand, the milky lymph, not being able to be separated in the vermicular vessels, because they are not emptied, must regurgitate into the blood; and draw on, by a necessary consequence, all the accidents, which it has been already shewn to cause, in the second state; and which have been explained under Number 4, 5, &c.

7°. That it even sometimes happens, the lymph retained in the vermicular vessels thickens there, in consequence of its stagnation; and causes in them schirrous obstructions: as has been already observed, under Number 4, with relation to the third state.

8°. Finally, That in a short time, if these symptoms continue, such girls must be affected with weakness; paleness; depravity of appetite; obstruction of the *viscera* of the *abdomen*; tumefaction of the extremities; and dropfies; even often, of that fatal kind in this habit of body, which the physicians distinguish by the name of *cachexy*.

Experience has taught us, that this state happens 1°. When so imprudent a conduct has been pursued, as to employ too strong emmenagogue medicines to provoke the *menses*, in the girls who are in the third state because that then the blood, agitated by the effect of these medicines, forces the *appendices* to open while the milky lymph, on which these medicines do not act with equal power, is not able to dilate, in the same manner, the orifices of the vermicular vessels.

2°. When the girls, who are in the third state, make efforts, or use exercise, that are too violent; or happen to have some attack of fever. For then, the motion of the blood, which is augmented by it, opens the extremities of the veinous *appendices*, without exerting its action, in the same manner, on the milky lymph of the vermicular vessels.

3°. When the girls have naturally a colliquated and acrid blood, which escapes readily through the extrem-

extremities of the *appendices*; or which makes itself a way out, by eroding them.

FIFTH STATE.

The fifth state is nearly the reverse of the fourth; that is to say, in this state, on one hand, the orifices of the vermicular vessels, at least the greatest number, open into the cavity of the *uterus*, and suffer the lymph to be evacuated there, as fast as it is separated; and without giving it the necessary time for dilating these vessels; but on the other, the veinous *appendices*, which are not exposed to any compression, do not dilate and open; or, at least, only a very few, are dilated and opened.

It may be readily concluded from thence; 1°. That, in this state, there will be no *menses* of a red colour: since the veinous *appendices* do not open; or, at most, there will be only very little; since there can be only very few of the *appendices*, which do open.

2°. That the *menses* of a red colour, if they do appear, will only return periodically, with protracted intervals: because there must be a longer space of time, in order that the milky humour, which is lost in so many places, may be collected in a sufficient quantity, in the vermicular vessels that contain it, to cause some of the *appendices* to tumefy, and procure some slight discharge of the *menses*.

3°. That this suppression, or at least diminution, of the *menses*, will not, however, occasion either heaviness, tension, or griping in the *uterus*: because it does not suppose any repletion there, either in the blood-vessels, or those of the milky humour.

4°. But that this state will be always accompanied with a discharge of the *fluor albus*; that is to say, with a discharge of the milky lymph, which the orifices of the vermicular vessels suffer to flow out; and that this discharge will be continual, if the orifices of these vessels remain constantly open; will cease by intervals, if the orifices close, from time to time; and will be more or less copious, according as these orifices will be

more or less open ; or as the number of those, which may be open, will be greater or less.

5°. That, by the continuation of this discharge, especially if it be copious, the patient will be weaken'd, emaciated, lose her appetite, fall into languors, and at last into a *cachexy*, and all the consequences of it.

This state happens principally to girls, 1°. Who are of a phlegmatic habit ; or who have their blood colliquisted by some languishing disease, or by the immoderate use of medicines of a dissolving nature.

2°. Who have the fibres naturally lax ; and the membranes formed of these fibres thin and weak ; which occasions, that the internal coat of the *uterus*, in particular, has neither sufficient thickness, nor resistance, to keep the orifices of the vermicular vessels close to the degree that is requisite.

3°. Who have been early incited by touching, or frequent pressures of the body of the *uterus* ; which has forced the orifices of the vermicular vessels before the due time, and by degrees intirely relaxed them.

COMPOUND STATES.

These states depend always on the concurrence of two, three, or four, of the simple states ; which meet together at the same time in the *uterus*. As these kinds of combinations may be numerous, the number of these states must be great ; and it would be a matter of difficulty to explain them in detail : but after what has been said before of the simple states, there will be no occasion to enter into this discussion.

It is sufficient to observe, 1°. That each of these compound states may be easily resolved into two, three, or four, simple states, which may serve to explain their accidents, and to establish their method of cure.

2°. That we may even, without taking this trouble, attend only to that state alone, which appears to predominate : because, in finding a remedy for this, a remedy is generally found for all the others, on account of the relation they have to each other ; or, at least, the most momentous disorder of the *uterus* will be

be corrected, after which the others will scarcely resist.

§. II. DIAGNOSTIC.

The first object of diagnostic regard ought to be, to distinguish the five states of the *uterus*, that may be found in girls at the time of the eruption of their *menses*: and the second, to examine, as far as possible, what the causes are, which produced these several states, or which conduce to support them.

I. As to the *first* point, the nature of the accidents, which precede, or accompany the eruption of the *menses*, suffices to indicate, in a manner sufficiently certain, the interior state of the *uterus*; provided they be properly attended to in that view.

1°. Therefore, every time we find girls, in whom the *menses* are established without pain, griping, or other accidents, we may be assured the *uterus* is in the *first* state.

2°. When, after their breasts are already formed, girls fall by degrees into all the accidents of the *chlorosis*, without having the *menses*; and, moreover, without feeling either tension, weight, or pain in the *uterus*; it is a sign the *uterus* is then in the *second* state.

3°. When the girls, who have not the *menses*, any more than those just before mentioned, although of the age of puberty; but who have, in a similar manner, all, or almost all, the symptoms of the *chlorosis*; perceive, at the same time, tension, swelling, and gripings in the *uterus*, which come periodically: and that it happens to them, sometimes, to have then a slight lymphatic discharge, milky and bloody; it is a criterion, that the *uterus* is then in the *third* state.

4°. When the girls, in whom the discharge of the *menses* is copious, long, and frequent, even so as to degenerate often into a kind of flooding, have at the same time several symptoms of the *chlorosis*, there is room to presume, that the *uterus* is in the *fourth* state.

5°. Finally, when the girls, instead of having their *menses* of a red colour; and in the proper quantity, and period; have, in their place, only a discharge of *fluor albus*: which sometimes ceases by intervals, and sometimes is continual; and which comes, or at least augments, sometimes irregularly, and sometimes periodically; it cannot be questioned but that the *uterus* is then in the *fifth* state.

II. For the *second* point, we can scarcely be certain of the causes which have given rise to the several states of the *uterus*: or which support them; unless by the sincere account, which the girls, or their relations, may give of every thing that has preceded. But they are often ignorant of, or have forgot the greatest part of the facts, which might give some light; and often chuse not to confess them. Most frequently, these states of the *uterus* depend only on the original conformation: wherefore, we are reduced to simple conjectures with respect to this part of the diagnostic. Happily, indeed, it is not of great consequence to be better informed: because it cannot have much influence on the choice of the medicines; which the known nature of the accidents, and the circumstances of the state of the *uterus*, on which they depend, sufficiently indicate.

§. III. PROGNOSTIC.

I. It is always advantageous, that girls should have the *menses* at the proper age; that is to say, towards the fourteenth or fifteenth year: and that they should come easily, and without accident; because the eruption that unites these circumstances saves the girls many inconveniences, evinces a good constitution of the fibres of the coats and vessels of the *uterus*, and promises the most favourable disposition to fecundity.

II. It is therefore, by the reverse of these reasons, a misfortune for girls; that this first eruption fails of some of these circumstances; or, in other words, that the *menses* come too soon, or too late; that they are established with difficulty and trouble; or that they bring on injurious accidents. Besides, its being a criterion almost

almost certain of a bad formation of the *uterus*, experience shews, moreover, that the girls, in whom this happens, are frequently exposed to obstinate infirmities: almost always subject to have laborious *menses*; and most commonly less fit to bear children, particularly such as are very healthful.

III. From hence it is easy to decide of the prognostic, that should be made of the five states, in which the *uterus* may be in girls, who have attained the age of puberty. The first which procures the *menses* easily, readily, and free from accidents, is always advantageous. The four others, which fail each of some of these circumstances, are all productive of ill, but not all equally so.

1°. The second, where there is not any tumefaction either in the blood-vessels, or the milk-vessels of the *uterus*; and where the girls have, indeed, some symptoms of the *chlorosis*, but feel neither tension nor pain in the *uterus*; is the least injurious of all: because it supposes only a little too much density in the vessels of the *uterus*, which is corrected gradually by age; brings on no accidents, but such as are slight; and does not give occasion, either to any dilatation in the blood-vessels, or obstruction in the milky vessels.

2°. The third state, where there is a tonic swelling in the milk-vessels, and the blood-vessels; and where the girls are subject, at the same time, to tensions and gripings in the *uterus*, and to several accidents of the *chlorosis*, is yet more supportable than the two others: as well, because this state leads of itself almost always to a kindly eruption of the *menses*; provided patience be had to wait the operations of nature, without seeking to anticipate them; as, because the accidents that it causes are not attended with danger. For the obstructions which may be formed in the vessels, may be prevented with sufficient certainty.

3°. As to the fourth and fifth states, they are the most injurious: but nevertheless with some difference in relation to the judgment that should be formed of them. For in general the fourth state, where the *menses* are too

too copious, long, or frequent ; and where they degenerate often into a kind of flooding; is the most dangerous : and the fifth, where there is a discharge of a white colour, and continual, or subject to frequent returns, is the most obstinate.

§. IV. CAUSES.

Of these five several cases, which may happen in the first eruption of the *menses*, the first is a perfectly natural state, which requires no medicines; and in which nothing is to be done, but to leave nature to herself. With regard to the four others, the second and third may be reduced to the suppression of the *menses*. The fourth does not differ from the excessive discharge of the *menses*, or flooding from the *uterus*: and the fifth agrees in every thing with the discharge of the *fluor albus*. To avoid repetitions, we therefore may, and indeed ought, to refer the method of cure, which may be proper to each of these cases, to the particular chapters where these three several diseases are treated of. At least, if we deviate from this method, it should be only with regard to the second, and the third cases, which are the most common: though even what we shall say regards less the particulars of the administration of medicines, on which we have no intention to expatiate here, than the rules of prudence, that should be observed, when there is occasion to aid the first eruption of the *menses*.

I. As, in these two cases, the principal cause, that retards the eruption of the *menses*, is the too great density of the substance of the *uterus*; and particularly of its vessels, as well those of the blood, as the milk; the first attention must be to relax and supple the texture of the *uterus*, by the use of *humectants*, *diluents*, and *emollients*, both internal and external.

In this intention, if the dryness of the skin, and the briskness of the pulse, require, and the state of the stomach permit it; we may order, 1°. Broths of chicken or veal; in which are boiled, roots of the yellow mallow, strawberry, or wild succory, of each one

ounce;

ounce; and the leaves of borage, bugloss, lettuce, and dandelion, each one handful: and we may add, in straining them, a drachm of *sal prunella*, or of chrystral mineral.

2°. Aporems, or decoctions of the same roots, and leaves, nearly in the same proportions; adding to each dose, half an ounce, or an ounce of syrup of violets, poppies, or water-lily.

3°. Weak emulsions strained, or even boiled; which should have each four drachms of melon-seeds, freed from the husks, from which the milk should be drawn with water of dog-grass, or a weak decoction of barley; and to which may be added, some of the syrups just before mentioned.

But if, on the contrary, the pulse be regular, and weak; and that the stomach does not seem to be in a condition to bear medicines so cooling; it may suffice to give well clarified whey, either simply, or infused on the better plants; as ground-ivy, ground-pine, germander, wormwood; or chalibated by the repeated extinction of a bar of iron heated red hot. In cases of necessity, the whole may be reduced to the sole use of milk distilled in *balneo mariae*, either without the addition of herbs, or with the plants that are cooling, or slightly vulnerary, according to the state of the pulse, or the quality of the blood.

But equally in either of these two states of the pulse, and stomach, a bath, or half-bath of warm river water must be used frequently, and repeatedly: into which the patient must go once a day, in the morning or evening, according to her choice: though where it is indifferent with respect to other things, bathing in the morning should be always preferred. On the coming out of the bath, it will be the most fit time to take the broths, aporems, or emulsions, which it may be proper to order.

II. As the other cause, that contributes often to the retardation of the *mensæ*, depends on the inspissation of the blood, and the slowness of the circulation; which occasions that the effort of the blood, that comes into

into the venous appendices of the uterus, is not sufficiently great, to surmount the resistance, and force them open ; it is of consequence, as soon as the texture of the solids is relaxed, to employ opening, or dissolving medicines, known by the name of *emmengogues*. But it is proper to begin always with the gentlest, and rise to the more powerful only by slow degrees, in proportion as the obstinacy of the disease requires it ; and as there is room to believe it may be done with safety. I have thought it fit to enumerate them here, at least the most useful of them, according to this order ; and to note the dose, in which each in particular may be employed.

Water impregnated with the rust of iron, *for common drink.*

Chalybeate wine, *in the dose of four ounces a day.*

Martial soluble tartar; *from eighteen grains to a scruple.*

Aperitive saffron of Mars; *the same dose.*

Steel filings porphyrised; *from fifteen to twenty grains.*

Æthiops mineral, or saffron of Mars with water; *the same dose.*

Tincture of steel; *twenty-five or thirty drops.*

Terra foliata tartari; from thirty grains to half a drachm.

Æthiops mineral prepared by heat; *the same dose.*

Galbanum,

Sagapenum, } *from eight to fifteen grains.*

Gum Ammoniac;

With these medicines, by combining them in different manners, may be made, opiates, bolusses, pills, lozenges, &c. according to the taste of the patient. But the following chapter, *Of the menses suppress or diminished,* may be consulted on this head : as the matter is treated of there much more particularly.

III. It often happens, that, instead of ordering alternately the humectants and diluents ; and the dissolvents or aperitives ; they are employed together to combine their action. In this case, may be given, 1°. Broths, prepared as has been directed in the preceding

article; in which a drachm of filings of rusty iron, or aperitive saffron of Mars, tied up in a rag, may be boiled; or half a drachm, or a drachm of *sal mirabilis Glauberi*; or of the *arcانum duplicatum*; or twenty grains of the soluble martial tartar dissolved; or from twenty to twenty-five drops of tincture of steel added.

2°. Aporems with the same herbs, or with wild succory; to which is added, in the same manner, the *sal mirabilis Glauberi*; *arcانum duplicatum*; martial tartar; or *terra foliata tartari*; or to which nothing more is done, than to suffer a ball of steel to be infused till it renders them black.

3°. Some well-clarified whey, in which is dissolved, twenty grains of martial soluble tartar; or with which is commixt, twenty or twenty-five drops of tincture of steel.

4°. It would be yet better, if the season be proper for it, to drink, either the mineral chalybeate waters; such as are common in all the provinces of this kingdom; but among which the most approved are those of Vals, Caransac, Camarets, Forges, &c; or the thermal purging waters; as those of Vichi, Bourbon, Balaruc, &c.

IV. To render the effect of these medicines more certain, the advantages of a good regimen should be joined to them. Therefore, 1°. The patient should not be suffered to take any but such food as is easy of digestion, and of good quality. Nothing should be allowed them, but what their stomach can easily digest: and they should be forbid all the other fantastical kinds, which their depraved taste suggests to them. By this means, the chyle, that will be more copious and more refined, will, on the one hand, increase the quantity of the milky humour; and, on the other, correct the thickness of the blood.

2°. The patients should be exhorted, at the same time, to use exercise on foot, to play, work, walk, dance, divert themselves, &c. to accelerate the circulation of the blood, diminish the spissitude of it,

and

and make it pass with more force into the vessels of the *uterus*.

V. Finally, in the administration of medicines to bring down the *menses*, attention must be had, to avoid deviating from the following rules; which are in this point, as so many maxims of prudence.

1°. Not to attempt to hasten the eruption of the *menses*, either in autumn or winter: because the solids are then too close; and the fluids too thick: but to prefer always, when it can be done, the spring, or the summer.

2°. To esteem, as more certain, the aid of nature, whose operations are more safe whenever she acts, than that of the most boasted medicines; of which the effect is more uncertain and dangerous.

3°. Consequently to incite nature often, when she shall be too slow; but to incite her by gentle medicines, or, at most, such as are moderate: and, after having some time done this, to wait for and attend on her motions, for fear of bringing on any injurious accident, by forcing the vessels to open by violence.

4°. To employ scarcely any but moderate purges, though at the hazard of being longer in curing the patients. For, in this disorder, they are always soon enough cured, when they are well cured. At least, if strong purges or emetics be employed, to know how to employ them properly: on which matter, the following chapter may be consulted.

5°. To join antiscrophulous medicines with the dissolvents, and emmenagogues, in all the cases where there is reason to suspect there may be in the patient any scrophulous ferment, that occasions the thickness of the blood and lymph.

6°. To neglect nothing during the time of waiting till the *menses* are established, either to strengthen the stomach, and promote digestion; or to correct, or diminish the accidents of the *chlorosis*. We may, in this intention, advise the use of wine at meals; of water impregnated with rust of iron; and of the cold infusion of rhubarb; direct some glasses of decoction of

of wormwood in white wine; or of juniper-berries in water: or give fasting the extract of juniper, or bark; or some drops of quintessence of wormwood; *elixir proprietatis*, without acid; or a spoonful of distilled *elixir proprietatis*, called vulgarly *Garus*, mixt with a spoonful of wine, or of orange-flower water.

7°. To introduce properly bleeding; and in the different manners, according to the state, and the wants of the patient. That in the foot is sometimes decisively effectual, when every thing with regard to the *uterus* is ready; and there is nothing further requisite than to increase the velocity of the blood, which passes into its vessels. This case is indicated by a moderate tension of the *uterus*, joined with a slowness and smallness of the pulse. On the contrary, it is detrimental, when the repletion is so general in the *uterus*, that the vessels, by compressing each other, become mutual obstacles to their dilatation. It is proper then to bleed in the arm: and this the famous case recited by Riviere: of which the symptoms are, the fulness and quickness of the pulse, joined to a painful tension of the *uterus*. Excepting this, at least when no particular accident renders it necessary, great circumspection should be observed in the use of bleeding in the arm, in cases of retardation of the *menses*.

8°. Finally, to recommend marriage, as a resource almost infallible for girls in whom the *menses* come difficultly. For the most part, nothing is more efficacious to establish and augment the *menses*. In all cases, the first pregnancy and delivery finish what coition alone could not effect, by dilating, extending, and opening all the vessels of the *uterus*; as well those of the blood as milk.

Medicines used to promote the first eruption of the menses.

I. Frequent use is made of the following lozenges. Take of common sugar, four ounces; boil it in a sufficient

ficient quantity of common water, which is about a pint, to half the quantity of syrup. Add then of cinnamon powdered, three grains; and of steel filings porphyrised, half an ounce. Boil the whole into the consistence of a conserve; spread it upon a table; and, when it is cold, part it into sixteen equal lozenges.

One of these lozenges must be given in the morning fasting; and if the disease be considerably pressing, another in the afternoon, four hours after dinner: drinking each time, upon it, a dish of tea; or a glass of ptisan.

The use of these lozenges may be a long time continued: because they have nothing in them too powerful. But as they are not cathartic, the patient must take purges from time to time.

II. To avoid this trouble, other lozenges are prepared somewhat similar to them, in the form which follows; but a little purgative.

Take of the leaves, or follicles, of senna, two drachms. Boil them in a pint of common water; and having strained the decoction, add to it four ounces of sugar; half an ounce of powdered cinnamon; and an ounce of aperitive saffron of Mars, in powder likewise.

Boil the whole to the consistence of a conserve; and having spread it on a table, dusted with a little cinnamon or sugar powdered, part it into sixteen lozenges.

These lozenges are given according to the directions for the preceding: except that they are not to be taken in the afternoon; lest the patient be exposed to a purging in the night.

They are purgative, as appears; but only in a gentle degree. If it be judged they are not sufficiently so, two may be given in the same morning, with the interval of an hour betwixt them: or the dose of senna may be augmented, when they are made anew.

C H A P. IV.

Of the menses suppressed or diminished.

§. I. DESCRIPTION.

THE *menses* are suppressed, when they fail entirely to appear at the time they ought to come. They are diminished, when they flow less copiously, for a shorter time, or more seldom.

To adopt the expressions established by usage, the suppression of the *menses* may be *natural*, *unnatural*, or *præternatural*. It is *natural*, in women, who have attained to the forty-fifth, or fiftieth year of their age: and in whom it is consistent with the order of nature, that the *menses* should cease. It is *non-natural* in women who are pregnant, and those who give suck: in whom it is, in the same manner, as natural, that the *menses* should be suspended. It is *præternatural*, in the women, in whom the *menses* fail to appear, without their being pregnant, giving suck, or being yet of the age to be exempt from them. This last case, is the only one when the suppression of the *menses* is a disease: and it is consequently of that alone we take upon us to treat here. We shall not, nevertheless, omit, by enumerating all the possible causes of suppression, to point out those which produce the two other kinds: but in so doing, care will be taken to intimate, that they do not relate to the case properly treated of.

With respect to the diminution of the *menses*; as there are three things to be considered in their discharge, the quantity, duration, and frequency, it is evident, that the *menses* may diminish in several manners.

1°. By one alone of these ways in particular; as when they are less copious, do not continue, or come more seldom. 2°. By two of these ways together; as when they are less copious, and continue a shorter

time; are less copious, and return seldom; or return more seldom, and continue a shorter time. 3°. By all these ways together; as when the *menses* are less copious, continue a shorter time, and come more seldom in the same person.

§. II. CAUSES.

I. *Menses suppressed.* It follows from the mechanism of menstruation, which we have before established in the preceding chapters, that all the causes of the suppression of the *menses* must be referred to three several classes: of which the *first* regards the vermicular vessels of the *uterus*, that do not become sufficiently full to compress the veins which lie near them: the *second*, the veins of the *uterus*, and the venous *appendices*; which, although, compressed, do not enlarge enough to open: and the *third*, the blood, which does not pass into these veins, especially the *appendices*, with sufficient force to make a way through their extremities. We shall examine methodically each of these classes.

I. Several causes may occasion, that the vermicular vessels of the *uterus* are not enough filled with the milky lymph; and do not dilate sufficiently, to compress the veins and the neighbouring *appendices* to the degree that is necessary for menstruation.

1°. If these vessels are naturally too little, hard, or dense, to be able to admit of the entrance of the lymph. It is true, this disposition of the vessels, when it arises from the original conformation, may well hinder, or retard the first eruption of the *menses* in girls. And moreover, when it is the inevitable consequence of age, it may cause their cessation in women advanced in years, and make them cease for ever; but as it can scarcely be ever renewed by intervals, it can scarcely ever take place in women who have already had the *menses*; and who ought naturally to have them again.

2°. If these vessels, or at least the greatest part of them, are either stopt by obstructions produced by the lymph,

lymph which is thickened; as in the schirrusses of the *uterus*: comprest by a repletion of the blood-vessels; as in the inflammation of this part: or eroded by suppuration; as in the ulcers of the same: these three are real causes which often produce the suppression of the *menses*.

3°. If the milky lymph be not furnished to these vessels; or at least is not sufficiently copious to fill them; which happens; 1°. When it is deficient in the blood; as in women wasted away, or recovering from illness: though this only produces a suppression without accident. 2°. When it is dissipated by hard work, loss of blood, or frequent purgings; though this can scarcely produce a perfect suppression. 3°. When it is furnished to some other part; as to the breasts in women who give suck: though this produces only a *non-natural* suppression. 4°. When it is evacuated elsewhere, as in an habitual flux of the belly; and in the haemorrhages almost continual: though this only produces an imperfect suppression; or, at least, such as is without accident.

4°. If the milky lymph, in proportion as it enters into the vermicular vessels, and separates there, flows out again, and is discharged into the *uterus* by the orifices of these vessels which are too open, and too much dilated; as in the habitual discharge of the *fluor albus*, that is always followed by the suppression of the *menses*, when all the milky lymph escapes from its vessels.

II. There is nearly the same number of causes capable of hindering the veins of the *uterus*, and the venous appendices, although comprest, from swelling and elongating themselves so as to open.

1°. The resistance of their coats; which, in consequence of being too hard, refuse to the expansion. But this cause, which is a defect of conformation, or consequence of age, can only relate to the first eruption of the *menses* in girls, or their intire cessation in women advanced in years; and can never bring on

the casual suppression of the *menses*, in women who have ever had them.

2°. The presence of a fecundated *ovum*, which fills the cavity of the *uterus*; hinders the venous *appendices* from elongating, and opening; or at most does not permit them to elongate and open, except in the *placenta*; which produces a suppression of the *menses*; but such as is *non-natural*; and general in pregnancy.

3°. The induration of the substance of the *uterus*, particularly its internal coat; which, by closing the venous *appendices*, prevents their dilating; as in schizarrusses of the *uterus*, especially when they are very large.

4°. The convulsive constriction of the body of the *uterus*; which closes, and strangulates suddenly the venous *appendices*: and which is caused; 1°. by cold that seizes the body; particularly the feet, joints &c: 2°. by any fit of passion; or any great or unforeseen vexation: 3°. by any quick and strong impression of fear. These are the three common causes which stop the *menses* suddenly in the time they flow and of which we shall presently have occasion to speak more amply. They all act on the *uterus* by a mechanism, we shall endeavour to explain below, in speaking of the hysterical passion; but which is in general the mechanism of all convulsive contractions, that depend either on the passions of the mind, or on sympathetic effects.

III. As to the causes which prevent the blood from passing into the veins of the *uterus*, and the venous *appendices*, with sufficient force to make a way through their extremities, we must deduce them all,

1°. From that the blood passes in too slowly; which happens because the heart, contracting slowly and weakly, can only communicate to it a small degree of velocity: as in persons who are ill, weak, or languishing: or because its spissitude hinders its receiving the whole impulse of the heart, as in all other cases where the blood is thick.

2°. From

2°. From that the blood enters there in too small a quantity : which happens, because it is deficient in the body from inanition, wasting, disease, &c : or because it is derived elsewhere, by blood-letting in the arm, suffered improperly ; or by bleeding at the nose too frequently.

3°. From that the blood enters there, both too slowly, and in too small quantity, at the same time : which happens from the concurrence of the causes laid down in the two last cases.

IV. Such are the three classes of causes which give rise to the suppression of the *menses*, each in particular, when they are simple ; that is to say, when there is only the milky vessels, veinous *appendices*, or the blood, in fault. But it may happen, and does so sometimes, that these different classes concur either two at the same time ; or even all the three together, on account of the close affinity betwixt the antecedent causes, which may produce them : and then it may be easily conceived, the combination of these united causes must produce suppressions of the *menses*, both more great, and more obstinate.

II. *Menses diminished*. The *menses* may be diminished in three manners : as has been already mentioned : by becoming less copious ; lasting a less time ; and returning more seldom.

I. The *menses* are less copious ; 1°. When the lactiferous vessels are only half filled ; and consequently compress the veins with only a small degree of force : which occasions, every thing else being equal, that the greater part of the blood continues to follow the direct way, without turning into the lateral *appendices*. See the first class of causes above.

2°. When the veinous *appendices* open only half way, or that there is only one part of these *appendices* which open at all ; in such manner that, all other things being equal, the orifices from whence the blood is discharged are less open ; or there is a less number of such as are open. See the second class of causes above.

3°. When the blood passes in less quantity into the vessels of the *uterus*, or that it enters with less velocity: which occasions, that every thing equal, in all other respects, the blood must flow then less copiously. See the third class of the causes above.

II. The *menses* continue a shorter time; 1°. When the lactiferous vessels, by emptying themselves more quickly, sooner cease to keep the veins compress: which occasions that the direct course of the blood is sooner open again. See the first class of causes above.

2°. When the venous *appendices*, which have been open, close themselves too soon: either, because they are less open, or have more power of resiliion. See the second class of the causes above.

3°. When the blood is accumulated only in small quantities in the vessels of the *uterus*: either, because it is deficient in the body, or derived elsewhere. See the third class of the causes above.

III. The *menses* come more seldom, 1°. When the lactiferous vessels are only filled late, to the necessary degree, to procure menstruation. See the first class of causes.

2°. When the venous *appendices* resist a long time to their dilatation, and do not yield without difficulty to being opened. See the second class of causes.

3°. When the blood, which is deficient or weakly propelled, cannot, under a long time, have force to dilate, and open the venous *appendices*. See the third class of causes.

IV. It is easy to infer from hence, that it is only necessary to combine these several causes two to two, or three to three, to account for the other more compound cases, which happen in the diminution of the *menses*: as when they are less copious, and continue a shorter time; less copious, and return seldom; return seldom, and continue a shorter time; or even, at the same time, less copious, of shorter duration, and return seldom.

§. III. DIFFERENCES.

Observation agreeing in this point with the theory, we have above established, proves; I. That there is a suppression, which is made suddenly, and stops the *menses*, even in the time they flow: and another, of which the causes act by slow degrees; and which, without stopping the *menses*, prevents them only from returning.

The sudden suppression, which stops the *menses* in the time when they flow, is caused by the convulsive constriction of the body of the *uterus*. It happens in women, who in the time of their *menses* expose themselves to cold, wind, or rain; put their legs in cold water; walk barefoot on the pavement, or floor; are seized with any terror or alarm, or any excessive joy; abandon themselves to any strong passion of anger; or give way to any violent excess of grief. See Class II. Number 4. These several causes produce their effects in a higher degree, in proportion as the passions of the soul, or the action of cold, are more powerful; and they happen most to those persons, who are least accustomed to them; or who are naturally most sensible of them.

The suppression which is made by degrees, and without stopping the *menses* during the time they flow, only prevents their return, depends on a great number of causes comprised in the enumeration we have before made. But it is easy to perceive, that they act only slowly, and by a gradual effect.

II. That there is a suppression with a discharge of the *fluor albus*: which seems to supply the loss of the red *menses*, and a suppression that is absolute, and without any *fluor albus*.

The suppression with the *fluor albus* is that particular kind, where the vermicular vessels of the *uterus* suffer the milky lymph to escape through their too open orifices, in proportion as it is separated. See Class I. Number 4.

The suppression without any *fluor albus* comprehends all the other kinds, where the vermicular vessels, designed to separate the milky lymph, do not suffer any of it to escape; whether they be full or not.

III. That there is a suppression without either pain or tension in the *uterus*, and a suppression with pain and tension in this part: and often with many other inconveniences.

The suppression is without pain and tension in the *uterus*, when the vermicular vessels, and venous *appendices*, are not swelled. See Class I, the whole; Class II. Number 1 and 3: and Class II. Number 2.

The suppression is, on the contrary, with pain and tension in the *uterus*, when these vessels tumefy: particularly the veins and venous *appendices*; of which the tumefaction causes a fulness and tension more great, and more universal. See Class II. Number 4, and Class III. Number 1.

IV. Finally, that there is a suppression without pain and tension in the *uterus*, in which the patients are exempt from all inconvenience, but some accidents of the *chlorosis*.

The suppression without pain and tension in the *uterus*, or any other inconvenience, happens from that the vermicular vessels do not tumefy; because the milky lymph is deficient in the blood, or derived elsewhere. See Class I. Number 4.

The suppression made without pain or tension in the *uterus*, but in which the patient suffers the accidents of the *chlorosis*, is caused in the same manner, as the precedent kind; from that the vermicular vessels do not tumefy: but what makes the difference is, that then this default of tumefaction is not occasioned, as in the preceding case, by the milky lymph's being deficient in the blood, or derived elsewhere; but because it cannot gain admission into the cavities of the vermicular vessels; as they are then dense, close, or stopt up. See Class I, Number 1 and 2.

§. IV. SYMPTOMS.

As there are suppressions of the *menses* of various kinds, it results, that the symptoms, which occur in this disease, vary in proportion. These are the principal of such variations.

I. If the suppression of the *menses* takes its rise from that the milky lymph does not come to be separated in the vermicular vessels of the *uterus*, because it is deficient in the blood; or derived elsewhere. See Class I. Number 3. In this case,

1°. The women will perceive neither tension, nor pain in the *uterus*; because there is not any tumefaction.

2°. There will not be any kind of discharge; because nothing can run either from the vermicular vessels, which will be empty; nor from the venous *appendices*, which will not be dilated.

3°. There will not be the least injury done to any function; at least none such as can be attributed to the default of the *menses*; because, in this case, the suppression detains nothing in the blood that ought to be evacuated. From whence it results, that in women who give suck; or are diseased; or just recovering from illness; the *menses* are often deficient, even several times successively, without their perceiving the least inconvenience from it.

II. If the suppression of the *menses* has for its cause the impossibility of the milky lymph's being separated in the vermicular vessels; not because it is deficient, as in the former case; but because these vessels are not in a state to receive it, on account of their being closed, or stopt up.

1°. This lymph will soon surcharge the blood: because there will be daily a fresh quantity produced there, without having any way, by which it may be evacuated.

2°. In consequence of accumulating there, it must be commixt in the breasts with their lymph; that is much

much of the same nature; which will occasion a swelling and tension of them.

3°. It will be even compelled at length to mix with the salival lymph; and that of the stomach; that are analogous to it, although in a less degree; which will produce even different likings for odd things; and consequently different kinds of *pica* and *malacia*, according to the different degree of acidity, or acrimony, that this lymph will have contracted.

4°. It will result at last, that by the odd things which are eaten, or by the bad digestion of the wholesome aliment, the stomach will be in a short time overloaded; from whence will rise *nausea*, risings of the stomach, heart-burn, vomitings, &c.

III. If the suppression of the *menses* be caused by the discharge of the milky lymph, which escapes from the vermicular vessels as fast as it is separated; and without being detained there. See Class I. Number 4. In this case,

1°. There will not, any more than in the preceding, be either tension or pain in the *uterus*: because there will be no tumefaction in the blood-vessels or lactiferous vessels.

2°. But there will be a discharge of the milky lymph, or of the *fluor albus*, more or less copious, continual, or periodical, according as the vermicular vessels shall have their orifices more or less open; and as these openings shall be constant, or variable.

3°. This discharge brings on an itching, irritation, and heat in the *vagina*, and the *vulva*, more or less great, according as the humour which is discharged is more or less acrid.

IV. If the blood fills, and tumefies the veins and the venous appendices of the *uterus*; and the suppression of the *menses* arises only from that the orifices of these appendices refuse to open. See Class II, and Class III, the whole.

1°. In this case, the patients will perceive a tension, pain, and heat in the *uterus*, more or less great, according to the degree of repletion.

2°. This

2°. This pain will become often strong enough, to merit the name of *uterine colic*: It will sometimes seize the whole of the *uterus*; and sometimes only a part of it; according as the repletion may be more or less general.

3°. This tension, and swelling, communicate themselves not only to the ligaments, as well broad as round, of the *uterus*; but also to the *vagina* and *vulva*, by means of the vessels which are common to both. Wherefore the patients must feel, in this case, all the symptoms, which usually foreshow the approach of the *menses*, and in a greater degree.

4°. After some days of suffering, every thing will diminish gradually without any sensible discharge: because the milky lymph, in consequence of dilating its vessels, will open at last, although with difficulty, a passage into the lymphatic veins, that spring from them: which will cause these vessels to empty themselves; to cease to compress the veins; and to give, at last, to the blood the liberty of circulating as usual.

5°. But this success is to be expected, only, when the milky lymph is sufficiently liquid to be capable of being intirely taken up by the lymphatic veins. Whenever it may be thicker, and there may remain in the vermicular vessels a sufficient quantity to keep them tumefied, the veins of the *uterus* will continue to be comprest; and consequently the tumefaction of the *uterus*, and the other enumerated symptoms, will subsist also; but in a degree more weak, and proportionable to the quantity of the milky lymph, that will be retained in the vermicular vessels.

6°. At length the continuation of the suppression of the *menses* will bring on an universal *plethora*: but which will be chiefly perceived in the *thorax*; where it will cause choakings, difficulty of breathing, coughs, palpitations of the heart, &c: and in the brain; where it will give rise, for reasons which are mentioned in Chapter II. §. V. to pains of the head, either gravid

or divulsive; watchings or dosings; frightful dreams; waking in starts, &c.

7°. If the course of the blood should be then obstructed in any part, where there may be any weak vessel; or the texture of any part should be slight, lacerated, eroded, &c; it may happen, that the blood will find a vent there; and cause a kind of periodical hæmorrhage: as it proves when the *menses* undergo a deviation.

V. In all cases of suppression, where the *uterus* is tumefied, extended, heated, and painful, on account of the repletion of its vessels. See Classes I. and II, the whole.

1°. The patients will suffer all the accidents of the hysterical passion, for the reasons that will be explained in the chapter, where this disease will be treated of.

2°. These accidents will be more or less great, and more or less frequent, according as the sensations that shall be produced in the *uterus* will be more or less strong; last a longer or shorter time; and return oftner or seldom.

3°. Moreover, these sensations in the *uterus* will cause, by a consequence of the law of sympathies, that will be explained in speaking of the hysterical passion, convulsive contractions in the fibres of the organs of taste; which would be sufficient to deprave that sense; even if the *saliva* should not be at all altered; and there is an instance of this in the sudden change, which acute pains produce in the faculty of tasting.

4°. The same sensations will cause also, at the same time, by the same law of sympathies, convulsive contractions of the fibres of the stomach, diaphragm, and muscles of the *abdomen*; even when the stomach may contain nothing else that can irritate it: and there is an instance of this in the vomiting, which the acute pain of the kidneys excites in the *nephritic colic*.

VI. If the *menses*, in the time when they flow, happen to be stopt suddenly, by the convulsive closing of the *uterus*. See Class II. Number 4.

1°. There

1°. There will happen, in this case, attacks of the hysterical passion, greater, longer, and more frequent, than in any other kind of suppression: because the sensations then excited in the nerves of the *uterus*, whether from the blood-vessels in which the blood, that is suddenly detained there, regurgitates; or from the muscular fibres which are in an *erethismus*, or violent state of contraction, will be stronger, longer, and more frequent.

2°. There will supervene, in the same case, many other frightful accidents; as faintings, lethargies, loss of memory and speech, *deliriums*, palpitations of the heart, choking fits, &c: which all, in the same manner as the hysterical passion, depend on convulsions or convulsive motions of different parts.

3°. The number, duration, and violence of these accidents, will vary, according to the copiousness with which the *menses* flowed when they were stopt, the time of discharge they had had; the facility with which they had flowed; the natural sensibility of the *uterus*; the age, and constitution, with respect to *plethora*; the state of blood of the patients; &c.

§. V. DIAGNOSTIC.

I. Nothing is more easy than to be informed of the suppression of the *menses*: since the patients may reveal it themselves. But when the suppression happens by slow degrees, and without any manifest cause, nothing is more difficult than to distinguish, whether it be the consequence of pregnancy; and of course want no medicinal treatment; or be caused by a disease, which does require the use of remedies.

Where married women are in question, this difficulty is less embarrassing: for they are commonly the first to imagine themselves pregnant. Their judgment in this matter must not, nevertheless, be always confided in: for there are some sufficiently dull or weak not to have the least suspicion of their being with child, at the time they are so.

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But the difficulty is infinitely greater, when girls who have never been married, or young widows, are the object. Their state ought naturally to place them out of the reach of all suspicion : but, unluckily, experience informs us too frequently, that an excess of confidence would, in many instances, be imprudent. Sometimes they may be ignorant of their being pregnant, when they desire medicines to make their *menses* return ; but, more frequently, they only desire these medicines, in order to hurt themselves, and to escape from a state of embarrassment.

If it be mortifying for a physician to be led into imprudent measures by the levity of a married woman, who exposes her offspring to danger ; it is infinitely scandalous to render himself, by his ignorance, the accomplice of the wickedness of an unmarried girl, or widow, who endeavours to destroy theirs. In order to avoid these deplorable extremities, there is only one safe way ; that is, to be attentive to the following criterions, that are the most certain ; and above all things to pursue the conduct we are going to point out.

1°. In pregnancy, the freshness and colour of the complexion are commonly preserved ; whereas in the suppression of the *menses*, that arises from disease, the face is almost always pale, thin, and discoloured. But this criterion affords scarcely more than a mere presumption ; for there are many women, who are as pale, and thin, in the first months of their pregnancy, as if their *menses* were suppressed from any other cause.

2°. In pregnancy, the orifice of the *uterus* is exactly closed : whereas it is not so, or but slightly, in the suppression of the *menses*, occasioned by any disease. This fact is very true ; but besides, that few think it proper to make the examination ; or dare even to propose it ; there must be a skill gained from experience in this matter, in order to distinguish the difference, sometimes very slight, which there is in the mouth of the *uterus*, in these two states.

3°. In

3°. In pregnancy, the accidents, which accompany the suppression, cease commonly towards the third or fourth month: because then, the *fætus* begins to consume, for its nourishment, enough of the milky lymph and blood, to prevent them from regurgitating. Whereas these accidents increase towards that time, by the continuation of the disease, in the suppressions of the *menses* that are against nature. This criterion is more evident, and more certain, than the two preceding: and it would be still more so, if we could confide in the representations of the patients: but girls, and yet more women who have experience, are able, by false accounts, to impose, in this point, on physicians who have the credulity to believe them.

4°. Finally, in pregnancy, the *uterus* rises with a point towards the navel, at the fourth or fifth month: and we may then distinguish its figure; and the extent of its volume, of which the circumscription is perceptible. In pressing it, the resistance of the body which is uneven, is felt: and moreover, if it be handled some time, and shaken gently, particularly with a very warm hand, the *fætus* being stirred, and wakened as we say, by the motion, and heat, stretches, moves, and renders itself capable of being distinguished. When these proofs are had, there is no more doubt of pregnancy, whatever the person may be, in whom they are found: but, also, every time that these criterions are wanting, at the fourth or fifth month, in reckoning from the time the *menses* have been supprest, it may be concluded, the suppression arises then from a real disease, for which remedies should be administered.

As it is the only certain criterion in these matters, a skilful physician must regulate his conduct by it. Thus, unless infallible reasons remove all danger of being deceived, which rarely happens, he ought always to defer the efficacious treatment of the suppression of the *menses* for four or five months; that is to say, till such time as he can, by the examination of the *abdomen* of the patient, render it clear to himself, whether she be pregnant

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nant or not. The reasons of this conduct may be even explained to married women, who acquiesce readily in it, and approve it. If, however, there happen, during this delay, any pressing inconveniencies, they may be relieved by regimen, and by the use of some stomachics, or gentle aperitives; which cannot, in any case, do harm.

With respect to unmarried girls, and young widows, to whom decorum does not admit of showing the suspicions that may be entertained, it is always proper to make them believe, that measures are pursued to bring back the *menses*: but instead of doing it, nothing should be ordered, but stomachics, absorbents, and bitters; that is to say, innocent medicines. The more they show of eagerness to complain of the little success of these medicines; and the more importunate they are to obtain others more efficacious; the more they ought to be suspected; and the more it is proper, promising them, at the same time, a change, to persevere invariably in this conduct, till there may be, at the fourth or fifth month of the disorder, certain proofs, that there is no pregnancy. In which case, without appearing to make any change, efficacious medicines must be begun to be given to them.

II. Another difficulty presents itself with regard to those women, who approach their forty-fifth, or fiftieth year. According to the order of nature, they cease to have their *menses* at that age. Wherefore, very far from endeavouring then to make them return when they disappear, it is proper, on the contrary, to think of the means of assisting nature in her due course; and of considering only how to put such patients into a condition of dispensing with the loss of this evacuation. Unhappily there are women, who do not believe themselves enough advanced in age, to lose their *menses*; and who, in deceiving themselves, deceive their physicians. There are some also who may indeed have some suspicion of the truth, but in consequence of that, only take the greater care to conceal it from others; and who, in this fantastical

notion, seek, with yet greater earnestness, to impose on their physicians.

Such are, for the most part, the victims of their folly, or caprice: for by striving to bring back the *menses*, which ought to be entirely gone; and to force nature; they often occasion floodings; habitual *flor albus*; or, what is yet more dangerous, inflammations, ulcers, or cancers in the *uterus*. But, after all, the blame these women may incur, does not justify the physicians, who have been imprudent enough to be influenced in their practice by their word. The severe rules of their profession ordain them to take all precautions against artifices, that ought to be known to them. We may, even in faces the least impaired, judge pretty nearly of women who ask advice; and if we suspect they have attained their forty-fifth year, we should, without listening to their demands, or being moved by their complaints, prescribe to them only stomachics, diluters, and absorbents; or, in other words, such medicines as are proper only to diminish the accidents of the cessation of the *menses*; or, at most, aperitives, dissolvents, and very gentle emmenagogues: that is, medicines which may aid nature, if any extraordinary cause hinder her operations; but which cannot do violence to her, in case she is bringing on a natural cessation of the *menses*.

Moreover, the delay of some months affords, at the proper period, a certainty on this head: and it is then the right time to have recourse to the use of emmenagogues; and to employ the methods of cure proposed in this chapter; if it be discovered, the suppression complained of, arises from any disease. But if, on the contrary, there be conviction, it is natural, all the contrary precautions ought then to be taken, to endeavour for a remedy to the bad consequences, this change may produce in some women: but it is not our business to enter into the detail of this here: and the last chapter of this book, where what regards the cessation of the *menses*, and the in-

82 OF THE DISEASES

conveniences that may be brought on by it, are amply treated, may be consulted on this head.

III. When a certainty is obtained, with respect to the nature of the suppression of the *menses* that is in question, there is nothing more required, than a moderate attention to discover of what kind it may be; and from what cause it arose.

1°. Every suppression is either suddenly made; and stops the *menses* in the time when they flow; or comes on gradually; and prevents the *menses* from returning at the due period.

But we have already observed, that the sudden suppression is always caused by the convulsive contraction of the *uterus*, occasioned by exterior cold, particularly of the legs; or some violent passion; as joy, grief, fear, &c.

2°. Every suppression, which happens gradually, gives rise, or not, to a discharge of the *fluor albus*.

But it has been shewn, that the suppressions, which are attended with a discharge of the *fluor albus*, either periodical or habitual, arise from the relaxation of the orifices of the vermicular vessels of the *uterus*; which suffer the milky lymph to escape as fast as it is separated.

3°. Every suppression without *fluor albus*, is, or is not attended with pain, and tension, in the *uterus*.

But it has been already proved, that the suppressions, which are without any discharge of the *fluor albus*, but in which the patients feel tension, pains, or colic, in the *uterus*, must always have for their cause, either the faulty state of the *uterus*, of which the internal coat, and the venous *appendices*, being too dense, or close, prevents them from dilating, and their *appendices* from opening; or some defect with relation to the blood, which is too thick, in too small quantity, or impelled too weakly, to conquer the resistance of the venous *appendices*, and force them to open.

4°. Every suppression of the *menses* where there is neither *fluor albus*; nor pain, or tension, in the *ut-*

as; either does not bring on any inconvenience; or leads on gradually the accidents of the *chlorosis*.

But it has been already mentioned, that the suppressions without *fluor albus*, pain, or tension, in the *uterus*; or any other inconvenience; depend always on the deficiency of the milky lymph in the blood; as in women wasted away, or just recovered from any illness; or who undergo great labour, or give suck.

5°. Finally, every suppression without *fluor albus*; and without pain, and tension, in the *uterus*; but, in which the patients fall gradually into the greatest part of the accidents of the *chlorosis*; results from that the milky lymph, which abounds in the blood, cannot be separated in the vermicular vessels of the *uterus*: because they are too little, dense, or close; or because they are stopt up; which occasions it to regurgitate into the blood; and to mix with the *saliva*, and *leven* of the *stomach*; of which it alters the purity; and vitiates the effects.

IV. As to the more remote causes, which may give rise to each of these immediate causes, and contribute thus to bring on the different kinds of suppression, they are scarcely to be distinguished, but by an exact account of the particulars of the habit, regimen, conduct, &c. of the patients: and they should be examined as to all these points, though, to say the truth, this information should tend less to the forming a judgment on the nature of the medicines proper to be employed, than to determine the changes that should be made in their manner of conducting themselves.

§. VI. PROGNOSTIC.

There are too many kinds of suppression of the *menstrues*, to admit of establishing a prognostic, which might equally regard all. It is necessary, therefore, to enter into a detail, and to enumerate, in particular, what is proper to each kind.

I. The suppression, which is not attended with any tension, or pain, in the *uterus*; nor with any disorder

in any of the functions of the body; is not of itself any way dangerous.

II. The suppression which does not draw on any inconveniences, except some accidents of the *chlorosis*, has not any other danger attending it, than that of the *chlorosis*; and this danger varies according to the degree or obstinacy of the disease.

III. The suppression, with a discharge of the *fluor albus*, is obstinate, difficult to cure, and sometimes dangerous. It may bring on a slow fever, consumption, *leucophlegmacea*, dropsy, ulcer, and cancer of the *uterus*, when the discharge of the *fluor albus* is copious and continual; or when the humour is very acrid.

IV. The suppression, where the *uterus* is subject to tumefactions, tensions, and acute and frequent pains, is always dangerous; and often followed, when it continues, with inflammation, abscesses, ulcers, *schirrus*, and cancer of the *uterus*; &c: and these accidents are more or less to be dreaded, according as the pains of the *uterus* are more or less continual, acute, &c.

V. The suppression, which causes an universal *plethora*, terminates always, when it is of long continuance, in lethargies, apoplexies, asthmas, palpitations of the heart, obstructions of the *viscera* of the *abdomen*, dropsies, vomitings of blood, &c: and these consequences are to be apprehended, in proportion as the patients are naturally more plethoric by habit, or regimen.

VI. The sudden suppression, which stops immediately the discharge of the *menses*, excites the most quick, violent, and sometimes momentous storms. It is then the patients are sometimes instantly struck with an apoplexy, or seized with a lethargy; find themselves choking; suffer strong palpitations of the heart; spit or vomit blood; become phrenitic, or maniacal; have strong attacks of convulsions, or convulsive motions; fall into the excess of the hysterical passion in the most frightful manner; and even sometimes die from the violence of these accidents. It is there-

therefore, with regard to this kind of suppression, more than any other, that we have reason to say, ' the *uterus* is the cause of an infinite number of diseases in women.'

VII. In general, the more the suppressions of the *menses* are of a long standing, the more they are difficult to be cured: because the length of time they have continued, proves, that the causes which produced them, were insurmountable, or must render them so. Nevertheless, Hippocrates relates, that he has seen cures performed on women, whose *menses* were supprest, not only for six months; after which time the author of the book, *De morbis mulierum*², gives up all hopes of cure; but even for four³, and even seven⁴ years. It is indeed, true, these instances are very rare; and should not be considered as affording any rule of judgment.

VIII. In general, the more the suppressions of the *menses* are difficult to be cured, the more they are dangerous; because it is to be feared, there is no means of avoiding the fatal consequences, which are threatened by the continuance of the disease.

IX. In general, so long as the suppression endures, a barrenness of the patient is to be expected. I am not, however, ignorant, there are some instances of women, who have become pregnant without having their *menses*: but these instances are not common: and, moreover, the facts have been observed in women, who might not in reality have the *menses*; but who had the *uterus* in a right condition; which cannot be said of the women, in whom the *menses* are wanting, through the effects of any disease.

X. In general, when it may happen, that these women conceive, we have little room to flatter ourselves, they will go to their time, or be delivered of

¹ It is thus that they have made Democritus speak, in a pretended letter to Hippocrates, found in their works of him. Τὰς εἰναῖς μόχθων μηγίων τερπατίν. μάτην. Uterus sexcentarum ærumnarum causa est in mulieribus.

² Lib. i. cap. 3.

³ Epidem. V. circa initium.

⁴ Epidem. IV. 92.

healthful children : because the blood-vessels and milk-vessels of the *uterus*, which are not in a condition to furnish the lymph and blood for the *menses*, cannot furnish them for the nourishment of the infant during nine months, in the proportion that is requisite.

§. VII. *Method of cure.*

It has been shewn, that there are two kinds of suppression of the *menses*: the one, which may come suddenly, in the time that they flow; and stop them all at once: the other, that which may come gradually; and without stopping them during the time they flow, only prevent their return. As these two kinds differ from each other, both with respect to causes and consequences; so they demand a different treatment, that renders it necessary, to make them two separate articles,

Of the suppression of the menses which happens suddenly during the time they flow.

I. If the patient has been affected by any violent passion, or seized with any terror; the first attention must be to moderate the impression which is made on her; of what nature soever it may be; and to endeavour to compose her spirits. But if she has been indiscreetly exposed to cold, means must be taken to warm her again, as quickly as possible.

II. In both cases, something should be given her of a spirituous nature; as wine, balm water, *l'eau des Carmes*, or compound balm water, water of the six seeds, orange flower water, or *garus*, &c. There should be put under her nose, some strong antihysterical odour, as the *sal volatile oleosum*, volatile *sal Ammoniac*, volatile spirit of urine, or *sal Ammoniacus*; or she should be made to snuff up the fumes of feathers, hair, leather, horse's hoof, or of a little blue ribbon. At the same time, she should undergo frictions of the thighs, with hot linnen cloths.

III. Haste should be also made, to dip both the feet in warm water; with which may be mixt, if there be time and convenience, a decoction of leaves of rue, feverfew, mugwort; or some other antihysterical plants.

IV. If that be not sufficient to bring back the *men-ses*, there should be no hesitation to bleed the patient copiously in the foot, without delay; which should be even repeated four hours after, if the violence of the accidents, particularly the choakings, palpitations of the heart, pains of the head, fainting fits, convulsive motions, hysterical passion, &c. require it.

V. There should be given to the patient, every hour, a cupful or two of a weak infusion of leaves of mugwort, balm, feverfew, sage; the vulnerary herbs of Swisserland; or even simple tea.

VI. There should be given, by intervals, a spoonful of an antihysteric potion; to which has been added a dose of anodyne tincture, to quiet the spasmodic contractions, which are the only cause of the disease, and the accidents. The taking this potion may be more or less urged, according to the exigence. It may be ordered nearly according to this form.

R. *Aquar. Artemisiæ & Melissæ* àā ʒij quibus dissolv.

Boracis Venetæ, ʒβ.

Theriacæ veteris, ʒj.

Add. aq. Cinnamom. bordeatæ. ʒj.

Tinct. anodyn. gut. xxx.

M. F. Haustus, sumendus ex cochleari.

VII. But if the violence of the accidents demand something more antihysterical, or active, the following pills may in that case be prescribed.

R. *Affæ fætidæ & castorei* àā gr. ix.

Salis volatilis viperarum, gr. xii.

Laudani opiatici, gr. iii.

M. F. Massa, dividenda in pilulas æquales probè deaurandas.

The patient must swallow one or two of these pills every hour, till the accidents begin to abate: and she must take after them a cup of the infusion, which has been directed above, Number 5.

VIII. If the patient continue too long in a lethargic fit, or violent convulsions, notwithstanding the bleeding in the foot be even repeated, it must then be determined to give her four or five grains of soluble tartar emetic, in a dose of the antihysterick infusion of Number 5. This is the only way to disengage the brain; and it is often, at the same time, the means of opening the veins of the *uterus*, and of removing effectually the suppression.

IX. If the discharge of the *menses* be well restored by these several aids, the patient will be cured, and there will nothing more remain to be done, than to watch her recovery. But, if the *menses* do not appear again, or that they appear unduly, and in an imperfect manner, from that time proper medicines may be begun to be used, in order to bring them back: on which head consult the next article. Nevertheless, it seems to be more prudent, to wait the whole month, when there is no urgent accident. For indeed a determination can scarcely be well made to come to a treatment in form, but by the state of the *menses* at the first time of their return.

X. So long as the patient suffers under violent accidents, she should not have any nourishment given her, because it would have no tendency, but to load the stomach: if it happen, nevertheless, that the disease continues long, there is no dispensing with the omitting to give her broth at the regular times. But so soon as the accidents are gone, or abated in their force, there may be added to the broth, jellies, rice boiled in broth, yolks of fresh eggs, &c; and to go on by degrees even to a more strong diet.

Of the suppression, which, without stopping the menses while they flow, only prevents their returning at the due time.

This kind of suppression comprises four cases. The *first*, where, instead of the *menses*, there is only a discharge of the *fluor albus*. The *second*, where the suppression is not followed with any inconvenience, either with relation to the *uterus*, or to the rest of the body. The *third*, where the patients do not feel any disorder in the *uterus*; but where the accidents of the *chlorosis* insensibly come on. The *fourth*, where they are subject to tensions, pains, and colics in the *uterus*; and a great number of other bad symptoms. The first of these cases does not require any other remedies than those which are proper for the *fluor albus*; and consequently the chapter of this book, where the *fluor albus* is treated of, must be consulted.

Although the *second* case urges less than any other, on account of its not producing of itself any accident; nevertheless, as it brings on barrenness so long as it lasts; and more especially, as it is to be apprehended, that if it be suffered to continue too long, the substance of the *uterus* may become at length too close and too compact; prudence requires it should not be neglected.

It has been shewn, that this kind of suppression never comes, except from the deficiency of the milky lymph in the *uterus*; as in women who are wasted, diseased, just recovering from illness, &c: or from the discharge being made by some other way; as in an habitual flux of the belly, the piles, bleedings and purgings too often repeated, &c: from whence it follows, that the intentions, by which it may be proposed to be relieved, are,

1°. To increase the quantity of chyle and blood, by an analeptic or restorative diet, nourishing the patients with food easy to be digested; making them eat three meals, and even four, if their stomachs can bear it;

it; giving, every day, either a dish of chocolate, or some biscuits dipt in sack; or some fresh eggs; or a draught of milk, if the state of the stomach will permit it.

2°. To banish all the medicines that conduce to the wasting the strength; as bleeding, purgings, and even glysters; unless inconveniences more real, and momentous, render the use of them indispensable.

3°. To stop, by the most proper methods, the evacuations, by which the blood is more and more impoverished, and loses a too great quantity of milky lymph: such as loosenesses, sweats, bleeding at the nose, &c.

4°. Finally, to oblige the patients to lead a sedentary, and still life, at least for some time; to lie long in bed; and, in a word, to keep themselves, if they can, in a kind of passiveness both of body and mind; in order to diminish the dissipation that is made by perspiration.

As to the *third* and *fourth* cases, as these two kinds of suppression are real diseases, they require also effective medicines. Those which are proper to them may be reduced to three principal classes: because it is evident, by the theory we have established, there are only three principal intentions of cure to be effected.

The *Ist*, to relax, and slacken the too close and dense texture of the *uterus*, its coats, and its vessels.

The *IID*, to increase the effort, with which the blood passes into the vessels of the *uterus*; and to render it sufficiently great to force them to open.

The *IIIId*, to incite the opening of these vessels, by procuring, through every proper means, frequent concussions, or slight convulsions in the *uterus*.

I. The first of these intentions is performed by different methods, which tend, nevertheless, all to the same end; and of which the effect is nearly the same. We shall enumerate them in a few words, and methodically; beginning with the most familiar.

1°. Broths of chicken and veal, with cooling and emollient herbs; as roots of the yellow mallows, wild succory, bugloss, dandelion, lettuce, harts-tongue, and spleenwort; the four cold seeds; &c; in which is dissolved, a dram of *sal prunellæ*, or chrystral mineral.

Cooling aporems made with the same roots, leaves, and seeds; in which is dissolved, in the same manner, a dram of chrystral mineral, or half a dram of purified nitre; and to which is added an ounce of syrup of maiden-hair, violets, succory, or yellow mallows.

Whey well clarified, in the dose of eight, or ten ounces; in which is dissolved, twenty, or twenty-four grains of the *sal mirabilis Glauberi*; and which is chalybeated, by quenching a red-hot iron in it; an ounce of simple syrup being also added.

The mineral steel, and vitriolic waters; as those of Caransac, Spa, Forges, Camarets, Passy, &c. which must be drunk in the proper season, for a fortnight, three weeks, or a month, with the usual precautions.

2°. Cooling and emollient glysters, with warm river water, the decoction of bran, clarified whey, or the decoction of the leaves of mallows, yellow mallows, *scantbus*, wall-pepper, mercury, beet, mullein, &c; linseed, the four cold seeds, &c; in which is dissolved a dram of *sal prunellæ*; and to which is added, one or two spoonfuls of vinegar, or an ounce of honey of violets, oil of lily, pulp of *cassia*, &c.

3°. Warm baths, or half baths, of soft water, particularly river water, that must be used in the morning for an hour, or somewhat less; and which must be continued for twelve or fifteen days; and repeated from time to time, according to the exigence: or here may be added, if thought proper, the decoction of the emollient herbs; as mallows, yellow mallows, *scantbus*, wall-pepper, mullein; or of some handfuls of linseed, or the four cold seeds, bruised.

4°. Emollient fomentations upon the hypogastric region, with a flannel, or a soft napkin folded in four doubles, and dipt in a decoction of the plants just before mentioned. The flannel, or napkin, must be strongly

strongly prest, that it may not give disgust; and it is to be applied hot on the belly; and renewed as soon as it is cold: which is to be repeated for an hour or two every day.

5°. The vapour that arises from an emollient decoction; which may be received by means of a perforated chair, for half an hour, or an hour: renewing the decoction when it is too cold, to afford the vapour. In order to carry this vapour further, a kind of funnel is sometimes employed; but, in that case, caution must be observed, with relation to the heat of the vapour; and if the decoction be very hot, the pipe and the funnel must not immediately touch the vessel which contains it.

6°. Bleeding in the arm, repeated with moderation. It is very proper, in order, by emptying the vessels to slacken the *uterus*, when it is too much tumefied by the repletion of the blood; as happens sometimes in plethoric women: which is always shewn by the tension, and constant pain they feel in the *uterus*, even at other times, as well as that of the return of the *menses*. This is the case observed by ¹ Riverius: and it is in that alone, the bleeding in the arm may be useful: for such bleeding always does harm in every other case of suppression: which ought to be considered as the foundation of a rule in this matter.

7°. Narcotics; as the syrup of *diacodium*, or *de karabe*; laudanum; anodyne tincture; pills of hounds tongue; of each a proper dose. These medicines are specific in all cases of general contractions, *erebimus*, or convulsive constriction of the *uterus*. They are also proper, even when there is too much density because nothing diminishes more efficaciously the great resistance of the fibres, than to suspend or check the course of the animal spirits, that support the tension. These medicines have likewise the property of dividing and attenuating the blood; and may more

¹ *Observat. Cent. i. Observ. 2.*

ver, by that means, tend to cause the return of the menses; for as to the notion, that they stop them, it has been a long time exploded.

8°. Emollient injections in the *uterus*, distinguished by the name of *metrenchytes*. They are formed of an emollient decoction, more or less strong: which is forced gently into the *uterus*, by a syringe made for that purpose: of which the *cannula* has an elbow, terminated with a round button, and pierced with several small holes, in form of an holy-water sprinkler. Care must be taken, when it is used, to inject the decoction when it is only of a gentle degree of warmth; such nearly as the natural heat of the body; to make these injections, if it can be done, in the cavity of the *uterus*; and to place the patient, when they are performed, in the most favourable posture for retaining them some time; that is to say, at least a quarter of an hour. But to declare the truth, this practice is almost out of use; not only, because it is indecent; but also because it requires skill to be executed without some danger; and that, after all, it is of little service, where the injection does not enter the *uterus*; as is seldom the case.

Nearly the same judgment may be given on the emollient pessaries which were formerly in use. They were made of the leaves of emollient plants, boiled in water, cut very small, or reduced into a paste; and tied up in a piece of fine linnen; or with the decoction, or the juice of the same plants, imbibed by cotton, lapt up in a piece of clean linnen; or by a simple roll of half-worn linnen. But it is seldom, that any body cares to meddle with them at present.

II. In order to effect the second intention, dissolving, attenuating, aperitive medicines, must be employed; and particularly those, which, from their supposed superior efficacy, they call *emmenagogus*; or, in other words, such as provoke the menses: though, perhaps, they scarcely merit this title, or at least, not by any preference so remarkable. The several medicines of this class are taken from the three kingdoms, to wit,

from the vegetable, the animal, and the mineral: and some are simple, and others compound. I shall enumerate them in due order; beginning with those most gentle, and most used of each kind: which I shall observe to mark by a *: and I will point out, at the same time, the usual dose of each to be taken at once: after which I shall take notice, in how many manners, and under how many forms, they may be employed.

VEGETABLES.

ROOTS.

- * Of Round and long birthwort.
 - * — Madder, *Rubia tinctorum*.
 - Pennyroal, *Pulegium*.
 - Parsley.
 - * — Petty whin, *Bruscus*.
 - Angelica.
 - * — Asparagus.
 - Masterwort.
 - Smallage, *Apium*.
 - * — Eringo, *Eryngium*.
 - * — Restharrow, *Ononis*.
- Half an ounce, or
ounce, in decoction.

Of Cyperus.

- Gladiole, *Iris nostras*.
 - Valerian.
 - Gentian.
 - White briony, *Bryonia*.
 - Cyclamen.
 - Black hellebore; half a dram in decoction.
 - Cuckow-pint, *Arum*. In powder, from a scruple to two.
- In decoction, from
two drams to four.
- In substance, from
half a scruple to a
scruple.

LEAVES.

- * Of white horehound.
 - Pennyroyal.
 - Dittany of Crete.
 - Rue.
 - Marjoram.
- In decoction, from
half a handful to a
handful.

* Of

- * Of Feverfew.
 - * — Southernwood.
 - * — Mugwort.
 - * — Cat-mint.
 - Calamint.
 - Origanum.
 - * — Tansie.
 - Balm.
 - Sage.
 - Rosemary.
 - Mercury.
 - * — Germaner.
 - Arbor vitæ.
- In decoction, from half a handful to a handful.

FLOWERS.

- * Of Roman camomile.
 - * — Feverfew.
 - * — Melilot.
 - Rosemary.
 - Lavender.
- In decoction, from one dram to three.
- * — Oriental saffron, from ten grains to twenty in substance, reduced to powder: a small pinch in infusion.

SEEDS.

- Of Nigella.
 - Rue.
 - Hartwort.
 - Sesile of Marseilles.
 - Anife.
 - The Cretan-carrot.
 - Fennel.
 - Skirret.
 - Lovage.
 - Water-cress.
 - Smallage.
 - Cummin.
- In decoction, from a dram to two.
- In substance, from half a dram to a dram.

BERRIES.

- * Of the Bay-tree. In decoction, from a dram to two: in substance, from half a dram to a dram.

* Of

* Of Juniper, from two drams to half an ounce, in decoction.

SPICES.

- * Mace. In substance, from ten grains to fifteen.
- Nutmeg. In substance, from fifteen grains to twenty.
- * Cinnamon. In substance, from half a scruple to a scruple.

BARKS.

- * Of the Tamarisk. Infusion, from a dram to three.
- * — The Caper tree. In powder, and in substance, from half a dram to a dram.
- * Jesuits bark. A dram in substance; and two drams in decoction.

GUMS, OR RESINS.

- | | |
|-----------------|--|
| * Myrrh. | } In substance, from
six grains to half a
scruple. |
| * Aloes. | |
| Opoponax. | |
| Affafetida. | |
| Gum Ammoniacus. | } In substance, from
ten grains to half a
dram. |
| Sagapenum. | |
| Galbanum. | |

ANIMALS.

- | | |
|-----------------------------|---|
| * Castor. | } In substance, from
ten grains to half a
dram. |
| * Millepedes. | |
| Prepared horse's testicles. | |

MINERALS.

- | | |
|-----------------|---|
| Amber. | } In substance, from
half a scruple to half a
dram. |
| Borax. | |
| Sal Ammoniacus. | |

COMPOUND MEDICINES.

G A L E N I C A L.

* Waters of Mint.	From one ounce to two.
— Pennyroyal.	
— Feverfew.	
— Mugwort.	
— Southernwood.	
— Wormwood.	
— Rue.	
— Horehound.	
— Sage.	
— Madder.	
— Tanfy.	
* Vinegar of squills.	From half an ounce to an ounce and half.
* Oxime of squills.	
* Syrup of Horehound.	From an ounce to an ounce and half.
— Calamint.	
— Five opening roots.	
— Mugwort.	
— Hyssop.	

C H E M I C A L.

Tinctures.

— Of Oriental saffron.	From six drops to fifteen.
— Myrrh.	
— Castor.	

Salts.

Soluble martial tartar.	From a scruple to a dram.
Sal mirabilis Glauberi.	
Arcanum duplicatum.	
Terra foliata tartari.	

Opening preparations of steel.

- * Aperitive saffron by sprinkling.
 - * ——— With sulphur.
 - * ——— With water only.
- From seventeen grains to half a dram.

Preparations of mercury not purgative, or gently so.

- * Æthiops mineral prepared by heat.
 - * ——— Prepared by trituration.
 - * Mercurial Panacea.
 - * Cinnabar, from six grains to ten.
- From ten grains to eighteen.

These are the medicines the most approved in the suppression of the *menses*. It is easy to vary the manner of administering them, according to the particular intentions that may occur ; or even to the palate of the patients. For they may be either prepared in broths, decoctions, apozems, potions, juleps, syrups or in compound powders, opiates, bolusses, or troches.

1°. The *broths* are made with a chicken, drawn and skinned : or with half a pound of slices of veal : or with a neck of mutton, or lamb : which are to be boiled in a sufficient quantity of water. There is to be added, towards the end, two or three kinds of roots ; each in the quantity of half an ounce, or an ounce ; and the leaves of two or three sorts of the herbs each in the quantity of an handful. The roots should be boiled longer than the leaves. The broth is to be strained at last ; and either some kind of salt, or some preparation of steel, must be dissolved in it, in a proper quantity. The use of these broths must be continued for fifteen or twenty days.

2°. The *decoctions*, or *apozems*, are prepared nearly in the same manner : except that no flesh is put into them.

them; and that there is added to them, after they are strained, some proper syrup, in the quantity of an ounce. The use of them must be continued for fifteen or twenty days, in the same manner, as that of the broths: and sometimes they may even be taken twice a day.

3°. As to the *potions*, two or three kinds of distilled waters, such as may be proper, must be chosen, each in the quantity of an ounce and half, or two ounces; or, in default of them, the decoction of two or three plants, such as may be best approved of, in the quantity of five ounces. Some proper salt must be dissolved in it; or some aperitive preparation of steel, in which is mixt the powder of some emmenagogue roots, or plants: and there must be added some electuary; as the *theriaca*; the *confectio hyacinthi*; or of kermes; or some tincture; as those of castor, myrrh, assafetida, &c. These potions are ordered by spoonfuls; which are to be repeated every half hour, according to the exigence of the case.

4°. The *juleps* do not differ from the *potions*; except that less salts, or powders, are employed in them; and that some syrup is always added: and the whole is to be taken at one time, once or twice a day, according to the necessity.

5°. If the officinal syrups, that are to be found in the shops, be not thought satisfactory, any magisterial syrup, approved of, may be prepared, by making a strong decoction of the roots or leaves of the emmenagogue plants, that may be chosen; to which a proper quantity of sugar being added, it is then to be boiled to the consistence of a syrup. This syrup may be employed in the apozems, juleps, and opiates, that are ordered.

6°. The *powders* are Galenical preparations, the most simple. There are chosen among the emmenagogue roots, leaves, seeds, barks, gums, &c. two or three of those that are thought most efficacious. They are pounded, and passed through a sieve: and then the quantity of each necessary for a dose is taken

out and mixt together: and by which means a dose of powder is obtained, that should not weigh, however, more than two scruples, or a dram. This powder is taken, diluted in some broth, apozem, or a few spoonfuls of wine.

7°. The *opiates* differ from the powders, only by the honey, syrup, or conserve, made use of to incorporate them; and to make a kind of electuary, a little thickish. They are taken in a wafer; and some broth, or a dose of apozem, to moisten them in the stomach, must be given after them.

8°. The *bolusses* resemble perfectly the opiates; and differ from them, only in that they are of a thicker consistence. The pills are prepared, also, in the same manner; and are yet harder: because they are more charged with gums, or roots. The pills, and bolusses, are taken in the same manner, and with the same precautions, as the opiates: but generally they are gilt after they are formed; in order to the rendering them more easy to be swallowed.

9°. Finally, the *lozenges*, or *pastels*, are prepared, by dissolving any quantity of sugar in some distilled water, or proper decoction, by mixing with the solution such powders as are judged proper; and by boiling the whole to the consistence of a thick syrup. When the boiling is finished, this mixture is spread on a marble table, and cut into pastels, or lozenges, of the size proper for a dose.

III. Different methods may be used to effect the third intention; that is to say, to procure the opening of the veinous appendices of the *uterus*, by the increase of the effort of the blood, which passes thither; or by the concussions, motions, and contractions of the body of the *uterus*.

1°. Bleedings in the foot, that by augmenting the velocity with which the blood descends into the trunk of the inferior *aorta*, augments, also, that with which it flows into all the branches of this trunk; and consequently into the uterine arteries. This is the method, the most quick, and safe, to provoke

the *menses*. But to render it very efficacious, it must be employed in the time when the return of the *menses* ought to be expected; and even, if it can, in the time when the tumefaction and tension of the *uterus* evince, that every thing is ready for the eruption: and nothing wanting to determine it, but a little more force in the impulse of the blood; which there is reason to hope for from bleeding in the foot.

The application of cupping-glasses on the foot, or thighs; or an opening made by a caustic under the ham; were formerly substituted in the place of bleeding in the foot: but the action of these remedies is too slow, and uncertain, to deserve that any great stress should be laid upon them. It is at present believed, that the end of bleeding in the foot may be answered, by dipping the feet in hot water; in which, sometimes, even emmenagogue plants are dissolved: and it is true that this expedient may be of some service: but it cannot be conceived that it should ever have the same efficacy as bleeding in the foot.

2°. Glysters made with the emmenagogue plants, and flowers; as feverfew, mugwort, pennyroyal, orehound, sabine, &c; the flowers of camomile, heliot, lavender, &c; in which are dissolved an ounce of honey of mercury, or of the *catholicum dulcatum*, or even six drams of the *biera picra* of *alen*, to cause a stimulus that may excite motions in the *uterus*.

3°. Purges slightly irritating, and on that account proper, by producing contractions in the intestines, to excite the same in the *uterus*. They may be composed of aloes, jalap, *diagrydium*, and *pulvis cornacbinus*, each in a proper proportion; or even with *biera pica*, in the dose of three or four drams, in the form of a bolus.

4°. Emetics, which, by the brisk contractions they excite in the *diaphragm*, and in the muscles of the *abdomen*, shake the *uterus* forcibly. The bisected soluble tartar is commonly employed in the

dose¹ of three or four grains, in broth, or in a dish of tea; or the powder of *ippecacuana*, in the dose of twenty-five, or thirty grains, in a bolus; or mixt, in the same manner, in a dish of tea, or in broth.

5°. *Errhines*, or *sternutatories*; which, by the sneezings they excite, move the *uterus* with almost as much force as the emetics. There is employed for this purpose, the powder of the leaves of tobacco, betony, and sage; and of the roots of Iris, or hellebore. But, if these powders be not sufficiently powerful, a little of the powder of euphorbium, pellitory of Spain, or long pepper, may be added.

6°. Baths, and half baths, made with the decoction of emmenagogue herbs; fomentations upon the hypogastric region; and injections in the *uterus* with the same decoctions. For the manner of employing these remedies, what has been already said on the subject of the first intention, Number 3, 4, and 8, may be consulted. But it is proper to intimate, that they are very slightly efficacious, in bringing back the *menstru*; and scarcely ever used at all in the present practice.

7°. Fumigations, that are applied by means of the perforated chair, and the help of a kind of funnel; of which the description has been already given. These fumigations may be either moist or dry. Those, which are moist, are made with the vapour that rises from emmenagogue decoctions, moderately hot, put under a perforated chair. The dry are made from the powders, or troches, compounded of emmenagogue drugs; that are burnt under the chair. The dry fumigations were formerly much employed, even with substances very acrid, though they are attended with some danger. But at present scarcely any, unless moist fumigations, are used, and even with them care is required, that they be not either too acrid, or too hot. These are such as may be admitted with most safety.

¹ The quantity of fibulated tar-
tar is varied, according to the
strength of the infusion; so like-

wise is the direction for the use of
this preparation, where it is or-
dered.

R. Aquæ Communis, vel Decocti cuiuslibet emmenagogi
bullientis q. s.

Addē spiritus salis Ammoniaci pauculas guttulas.

Vapor excipiatur utero. Vel.

R. Scoriarum Reguli antimonii q. s.

Coque in lixivio cinerum, donec lixivium rubicundum fiat.

Vapor excipiatur utero.

If these fumigations have no effect, the following may be employed in the case of women, who have the uterus naturally moist; and intirely free from pain.

R. Lixivii Scoriarum Reguli antimonii, de quo modò,
part. iv.

Vini Malvatici part. ij.

M. ♂ affunde super silices ardentes vel ferrum candens.

Vapor utero excipiatur. Vel.

R. Scorias Martis ignitas, aut ferrum candens, affunde urinam antiquam ♂ fætidam.

Vapor utero excipiatur.

8°. Pessaries. These remedies were formerly very much used, to provoke the *menses*; and even such as were very acrid were sometimes ventured to be employed. They are, however, much seldomer used at present; and when they are admitted to have any place in practice, it is only such as are very mild: as a pledget of wool, or linnen, medicated with the juice of mercury; leaves of mercury bruised, and rolled up in a piece of fine linnen; or flour of nigella, and powder of myrrh, tempered with the juice of mercury, and mixt with boiled honey; of which a pessary is formed. Moreover, it is only in women who have had commerce with men, that it is allowable to introduce these remedies into the *vagina*. For with virgins, it must suffice to apply them to the *vulva*; and the figure, which they there acquire, is the reason why the name of *nascalia* is given to them.

9°. Finally, to these remedies may be added, exercise, in whatever manner it may be performed; on foot; on horseback; in a carriage; dancing frequently; or by the use of coition: but it must be observed, at the same time, that glysters, purges, emetics, sternutatories, fumigations, &c. never succeed well, but when they are administered with skill; and at the time, that every thing is almost ready in the *uterus*; as has been already remarked with respect to bleeding in the foot.

Precautions necessary in the treatment of the suppression of the menses.

I. To take care to prepare the patients, for the use of emmenagogue remedies, by evacuating the *primæ viæ*, by purges; and by correcting the depravity of the blood, by alteratives.

II. Not to attempt to bring on the *menses*, but in temperate seasons; as in the spring and autumn; when the humours are more fluid, and the vessels more flexible.

III. To suspend in summer the use of dissolvents, and aperitives; for fear of heating the patients too much: and to employ, at that time, only diluents, and humectants; as baths, and mineral waters, or, at most, gentle emmenagogues.

IV. Not to make use of any remedies in winter, or at least, not such as are of importance; for fear the cold of the season, that thickens the humours, and contracts the vessels, may prevent the effect of them.

V. To begin always with the most gentle emmenagogues, and dissolvents; and to go on to those, which are more strong and acrid, only in proportion as the inefficacy of the others renders it necessary.

VI. To reckon among the most safe and efficacious emmenagogues, the preparations of steel, and mercury, that have been propos'd: and, also, in a particular manner, the gums; as gum Ammoniac, galbanum,

banum, &c : provided that those remedies are prescribed on the proper occasions, and in moderate doses.

VII. To use alternately, with the emmenagogues and dissolvents, humectants and diluents, to endeavour to relax, and supple the vessels of the *uterus*, at the same time that it is attempted to augment the effect, the blood ought to make to open them.

VIII. To often even join together emmenagogues, and dissolvents, with humectants, and diluents ; and sometimes even with narcotics ; but in a dose so small, that it may not cause any dosing.

IX. To moderate the action of the emmenagogues, or even to discontinue the use of them, if the *uterus* become painful, or the patient perceives herself to be very much heated : which may be discovered by *insomnia* ; thirst ; the quality of the urine ; &c.

X. To observe this conduct particularly in the case of patients who are of a bilious temperament ; that is to say, who have their blood acrid and dry ; and the fibres of the vessels stiff, distended, easy to be put into the state of an *erethismus* ; in which the emmenagogues cause almost always much heat, and sometimes even fever.

XI. To exercise the same caution, in the case of patients, whose lungs are weak and tender ; that is to say, who have their breast strait and contracted ; and their respiration short and difficult ; or who are subject to a cough ; and are of a family where the diseases of the breast have been common.

XII. Not to remain satisfied, in this last case, with intermixing humectants, and pectorals, with emmenagogues : but to order even asses or goats milk : though the use of milk is not of itself very serviceable, in the suppression of the *menses*.

XIII. To apprehend, that an opposite conduct would draw on some inflammation, or ulcer in the *uterus*, or the lungs ; or open some vessel in these parts, that would be followed by a bad hæmorrhage.

XIV. Not to use at all, or with the greatest precaution, certain emmenagogues, that are too acrid, or dissolvent,

dissolvent, with whatever praises they may appear to be honoured in the works of some authors.

XV. To avoid, above all things, pessaries, injections, and fumigations, that are too acrid: which, acting immediately on the *uterus*, may have effects proportionably dangerous. Such is the fumigation made with the regulus of antimony powdered, and thrown by pinches on burning coals. Such, also, is that prepared by mixing lime with urine; from whence there rises a true volatile salt of *sul Ammoniacus*.

XVI. To have the prudence, to chuse rather not to bring on the *menses*, than to run the hazard of procuring their return by such means, as expose the patients to all the fatal accidents, that may happen from them.

XVII. To take, in waiting the return of the *menses*, proper measures to diminish, and restrain the accidents, which the suppression brings on, by bleeding practised with circumspection: or, what is always more safe, by repeated purges, and due regimen.

XVIII. To cease to employ emmenagogues, if it happens, that the *menses*, instead of resuming their natural course, open themselves, elsewhere, some new passage; especially if this eruption be made by any noble part; such as the lungs.

XIX. To have recourse, in this case, to remedies, that are most proper to stop so dangerous an hæmorrhage: upon which Chapter VII. of the *deviating menses*, may be consulted below.

XX. Lastly, to confine, in cases where the endeavours to bring back the *menses* fail of success, the further treatment of them to the palliative cure: which consists in purging, and bleeding the patients from time to time; and prescribing them a proper manner of eating; as well with relation to the quantity as the quality of the food: in sweetning the blood by broths, or apozems, or by mineral waters, according to the seasons, &c. that nature may supply in some other way, as by urine, stool, sweats, or insensible perspiration,

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the want of the evacuation of the *menses*, that cannot be restored.

Medicines recommended in the suppression of the menses, which may be used without danger.

There are found in the works of practitioners, and even in the most celebrated, several medicines, which they offer as approved remedies in the suppression of the *menses*. Unhappily their number seems to evince their inefficacy. There would have been no occasion to have boasted of so many, if there had been any one among them that was indubitably certain. I believed it to be incumbent on me, nevertheless, to enumerate them. They are, for the most part, agreeable to the intentions proposed for the cure of this disease; and several of them are among those, which have been already mentioned. But, in enumerating them, I thought it requisite, to distinguish those, that may be employed without fear, from those whose violence is to be suspected; and whose effects may be dangerous: and it is with this view, I have made two separate articles.

I. Roman camomile, *Chamælum Romanum*. Half a handful of the flowers of camomile is boiled in wine; and the decoction is given fasting for three days. This medicine is innocent: but, at the same time, whatever commendations it may have had, it should only be reckoned among the weakest emmenagogues.

II. Madder, *Rubia Tinctorum*. A powder very much recommended in suppressions of the *menses*, is made, by mixing an ounce of the roots of madder, powdered very finely, with an ounce of sugar powdered. This mixture is divided into five, or six doses: and they are given in warm wine, morning and evening, five or six days together, before the time of the return of the *menses*. The medicine is as innocent, and almost as weak, as the preceding.

III. Mugwort,

III. Mugwort, *Artemisia vulgaris*. This plant is in common use in suppressions of the *menses*. Boasts are particularly made of a kind of conserve prepared of the tender leaves of mugwort pounded, reduced into pulp, and mixt with double its weight of sugar. A dram of this may be given in the morning fasting, for several days, at the approach of the time when the *menses* ought to appear. Zacutus, to render it more efficacious, ordered the patients to drink after it two ounces of savin water, in which had been suffered to infuse cold, during one night, half a dram of rhubarb. But the savin water ought to render this medicine suspected: because it renders it dangerous: as will be shewn in the following article.

IV. Lavender, *Lavendula*. In the places where this plant is common, the country-women have a custom of eating, in the morning fasting, some pinches of the flowers, chopt very small, and mixt with honey. They drink upon it, either a potage made of vetches, which has been before mentioned; or a decoction of white horehound: and they continue to take this medicine, for several days together.

V. Marigold, *Caltha* sive *Calendula*. A kind of conserve is made with the flowers of marigold, and sugar, pounded together; of which two drams is given, in the morning fasting, for several days; taking after it either some broth, or some emmenagogue decoction.

VI. Rosemary, *Ros marinus*. A handful of the leaves of rosemary is boiled with three or four pinches of the flowers of wall-flower; *Florum Cheiri vel Leucoci lutei*; and the decoction is given in the morning fasting, at the approach of the time when the *menses* are expected.

VII. Birthwort, *Aristolochia*. There are two kinds of *aristolochia* employed in medicine: the long, and the round. Besides the use which is made of it in broths, and decoctions, to bring back the *menses*,

there is prepared of it, in the same view, pills, known under the name ¹ *Pilulæ de Aristolochiâ Fernelii*: which maintain a reputation, even now.

R. Radicum Aristolochiæ rotundæ, 3j.

Radicis Gentianæ, Myrræ electæ, àā 3ij.

Aloës & Cinnamomi, àā 3fl.

Zinziberis 3j.

Omnia exquisitissimè tritæ excipiantur oleo Amygdalæ dulcium recenti. F. Massa Pilularum.

These pills may be ordered several days together, in the dose of a dram, or a dram and half; taking immediately after them, broth made with the sweetening plants; or such as are slightly emmenagogue.

There may be composed, with the same roots of the round birthwort, other pills, that are not less recommended in the suppression of the *mensæ*: and which are as gentle as those which bear the name of *Fernelius*.

R. Radic. Aristolochiæ rotundæ & Rubiæ Tinctorum,
àā 3fl.

Agarici & Cinnamomi, àā 3j.

Croci oriental. pulverat. 3j.

*Cum succo Artemisiæ. F. Massa Pilularum, cuius
dosis à 3j. ad 3ij.*

The same roots may be ordered in a manner yet more simple.

R. Radicum Aristolochiæ rotundæ & Rubiæ Tinctorum,
àā 3j vel 3fl.

*Agarici trochiscati gr. xv. M. cum syrupo de Ar-
temisiâ. F. Bolus pro unâ dosi.*

VIII. The blood of a wild goat, *Sanguis Hirci sylvestris*. Besides several other properties, there is ascribed to the blood of the wild goat, that of provoking the *mensæ*. It may be taken several days together, either in powder, or in a bolus; or diluted with some

¹ *Fernelius, Method. Medendi, Lib. vii.*

proper decoction; in the dose of from a scruple to half a dram. The blood of a tame goat may be used for the same purpose: but as it is less powerful, the dose should be a dram.

IX. Old leven, or yeast, *Fermentum panicum vetus*. A quantity of old leven, or yeast, of the size of a chestnut, kneaded with an equal quantity of sugar in powder, is given in the morning fasting, several days together, before the time of the return of the *menses*. Others dilute it with some emmenagogue apozem, or proper water. This remedy is extremely cried up: but I suspect this prejudice has no other foundation, than the mistaken authority of Galen, who has attributed to yeast the faculty of discussing and resolving: which is true of it, applied externally in a cataplasm; but proves nothing for it, taken internally. But, after all, if the yeast be not efficacious in the suppressions of the *menses*; at least it may be tried without any danger.

X. Aloes, *Aloë*. The sugar of aloes washed with rose water makes the basis of pills, called *Pilule de Aloë lotâ*: which are purgative and dissolvent. There are some physicians, who recommend them to provoke the *menses* in the dose of one dram; and who even dare to add, in order to acuate them, a scruple of the powder of savin: a practice, I presume, however, not at all fit to be imitated.

The juice of aloes make the basis, likewise, of the *Hiera picra*, a kind of purgative electary; of which the description is found in every Pharmacopeia: and it is on account of the aloe that ² Galen is lavish, in more than one place, in praises of the use of this medicine, as very efficacious in suppressions of the *menses*. It may be given in the dose of one or two drams, either alone, or mixt with half a scruple of castor: of which bolusses are to be formed; and gilt, that the bitterness may not be tasted. It should not

¹ *De Simplic. Medicament. Facult. Lib. viii. cap. 16. Num. 4.* Et *De Curand. ratione per venæ sed. Cap. 18.*

² *De compos. Medicam. Lib.*

be neglected to give after them, a broth made of flesh; or some emmenagogue decoction; to dissolve them in the stomach.

The juice of aloes enters also into the composition of the pestilential pills of Rufus, as well as myrrh, and the Oriental saffron. Therefore, it must not be thought surprising, that these pills should be recommended in suppressions of the *menses*. They are ordered to be taken in the morning fasting, for several days together, in the dose of half a dram, or of two scruples, each time.

Moreover, as the *elixir proprietatis* is nothing else but the tincture of Rufus's pills drawn with spirit of wine; and the white elixir of *garus*, only the *elixir proprietatis*, distilled in *balneo mariæ*; these two elixirs may be used with success in suppressions of the *menses*, for several days. The first in the dose of fifteen or twenty drops: the second in the dose of a tea-spoonful, in some proper fluid.

XI. Leeks, *Porrum*. Hippocrates, or at least the author of the book *De naturâ muliebris*, advises the juice of leeks, mixt with that of cabbage, as an efficacious medicine in suppressions of the *menses*. But I question, whether the success answers to the expectations this author raises.

XII. Oriental saffron, *Crocus Sativus*. The flower of saffron is emmenagogue, stomachic, and anodyne. It may be used in several manners, in the suppressions of the *menses*. It enters into the pestilential pills of Rufus, the *elixir proprietatis* of Paracelsus, and the elixir of *garus*, which has been already mentioned. It is added in substance to the greatest part of the preparations that are most recommended in this disease. It may be slightly infused in emmenagogue apozems, or in tea. Moreover, it is given in powder in the yolk of a raw egg, for several days together, in the dose of twelve, fifteen, or twenty grains.

XIII. Mercury, *Mercurialis*. It has been shewn above, that mercury is classed among the emmenagogue plants: and that a kind of pessary for provoking

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the *menses*, is made of the pounded leaves of it. Arnaud de Villneuve ¹ held this plant in great esteem; and put the juice of it into the composition of the following pills: which he recommended in suppressions of the *menses*.

R. *Succi Mercurialis & Mellis despumati*, $\overline{\text{aa}}$ 3j.
Farinæ Nigellæ quart. *B. vel q. s. ut possint confici pilulæ.* Dosis à 3j. ad 3ij. per aliquot dies, cum instat Catameniorum periodus.

XIV. Myrrh, *Myrrha*. This resin is ranked in the number of the most safe, and the most excellent emmenagogues. Therefore it is commonly used in the greatest part of the opiates or bolusses that are ordered for restoring the *menses*.

Many preparations, of which myrrh makes the basis, are recommended for the same purpose: as the troches of myrrh; which are ordered in the dose of half a dram, or a dram; giving after them broth simply, or prepared with emmenagogue plants: and the celebrated pills of Montagnana; which are in repute at present.

R. *Trochiscor. de Myrrhâ*, 3j. *B.*
Semin. Apii, Castorei & Corticis Cassiae, $\overline{\text{aa}}$ 3j.
Moschi gr. x. *Cùm succo Apii formentur pilula,*
N°. xij. Capiat duas manè per aliquot dies.

These pills have been augmented or corrected in several manners, on which the Dispensatories may be consulted. But they retain always the name of Montagnana; and preserve nearly the same qualities.

XV. Iron or steel, *Ferrum sive Chalybs*. Besides the several preparations of iron and steel, that are commonly used in suppressions of the *menses*; two very simple remedies, but, at the same time, very efficacious, that have iron for their basis, should not be neglected. The one is composed of equal parts of the rust of iron, or porphyrised filings of steel, and

of powdered leaves of calamint; which are incorporated by syrup of mugwort. The dose is one grain; to be taken in the morning fasting, for some days. The other is a powder composed of one part of the aperitive saffron of Mars, prepared with sulphur; two parts of cinnamon, and three parts of sugar. These three drugs are well mixt together, after having reduced them to a fine powder. The dose is, from half a dram to a dram, in the morning fasting, for several days together. Troches may be, also, made of them; and given in the same dose.

XVI. Red or black vetches, *Cicer rubrum vel nigrum*. The potage of vetches is boasted as a very good medicine in suppressions of the *menses*. It is made by boiling the vetches in common water, a long time, with roots of parsley: adding, at the end, a little cinnamon, and Oriental saffron; and in straining it, a little butter is melted in it. This kind of potage is given in the morning, fasting, for several days, at the approach of the time when the *menses* ought to appear.

XVII. White horehound, *Marrubium album sive Praessum*. A good handful of the tops of white horehound is infused, or even slightly boiled, in a gallon of white wine. The decoction is strained off with pressure; and given hot in the evening, at the time of going to bed. This medicine is good: but I doubt whether it merits all the praises, the physician who proposed it has bestowed on it.

XVIII. The spleen of an ox, *Splen bovis castrati*. Two medicines are prepared from the spleen of an ox; both extremely cried up in suppressions of the *menses*.

The first is the decoction of an ox's spleen. The entire and sound spleen of an ox, cut in pieces, is put into a glass cucurbit, large enough to be only half filled with it. There is then added, an ounce of cinnamon grossly powdered; half an ounce of cloves,

¹ Borellus. *Centur. iv. Observ. 14.*

two drams of saffron, and as much white wine as may be necessary to moisten the other ingredients. The cucurbit is afterwards stopt, by reversing another into it; and then luting them together: and the whole is boiled for twenty-four hours, in *balneo maria*, with a strong heat, till the pieces of the spleen are almost dissolved. The vessel is then suffered to cool; afterwards unluted; and the decoction strained off without pressure. Of this four ounces is given to the patient every day in the morning fasting, for four or five days, before the time of the *menses*.

The other medicine ¹ is a tincture, made in the following manner.

Take an ox's spleen; and having cut it into very thin slices, let it macerate, for some days, in tincture of myrrh, drown with spirit of wine. Dry the slices then in the shade; and draw from them a tincture with spirit of wine, in the usual manner.

There may be added, to this tincture, some drops of oil of Angelica, to render it more efficacious, as well as more agreeable. The dose is 3j. in any proportion of water, for some days together, before the time of the return of the menses.

These two medicines come originally from Paracel-
sus ²: who is, as far as I know, the first who has spoken
of the virtue of an ox's spleen, for provoking the
menses. Such an origin will scarcely procure any cre-
dit to it. I could never perceive much efficacy in
these medicines; and the little, which they have,
am convinced, they owe to the emmenagogue drugs
that are added in preparing them.

XIX. Castor, *Castoreum*. It is an unctuous fluid
of a strong smell, that collects in the *folliculae propriae*
to castors. It is made use of, with success, in the
hysterical vapours: and it is proper, also, in suppres-
sions of the *menses*; employed either in substance,

¹ See Oswaldus Crolius in *Basi. à Chimicâ*, pag. 305. ² *Archidoxorum*, Lib. vii. fine.

the dose of, from ten grains to a scruple: or in tincture, in the dose of, from fifteen to thirty drops.

Remedies recommended in the suppressions of the menses; but of which the effects are suspected.

The following remedies are authorized by suffrages, too numerous, and too respectable, to admit of their being rejected, as pernicious. I cannot doubt, but that they have formerly had success, since celebrated practitioners assure us of it; and I believe they would have now the same success, sometimes, if they were employed on proper occasions, by physicians who knew, distinguished, and embraced the proper opportunities of giving them: and who had the prudence never to administer them, but with the necessary circumspection. Unhappily, the ablest physicians do not use them at all; or but very seldom. There are scarcely any but zanies and empirics who employ them: and, in their hands, it is not surprising, that they produce bad effects: for it is evident, that, with them, their boldness is always equal to their ignorance.

I. Savin, *Sabina vulgaris*. Many authors, some of them celebrated, recommend, in suppressions of the *menses*, different preparations of this plant; as,

1°. The decoction of the leaves in common water, either alone, or joined to other emmenagogue plants, in the quantity of half a handful for each dose.

2°. The water distilled from this plant, which is used in the same manner as the other emmenagogue waters: and is given, at each time, in the dose of one ounce.

3°. The distilled oil of favin; which is intermixt in opiates, bolusses, and pills, for the suppression of the *menses*, in the quantity of two, three, or four drops each dose.

4°. The extract of favin, which enters into the same medicines, in the quantity of, from half a scruple to a scruple for each dose.

5°. The syrup of savin: which is also described by a German physician, who calls it an admirable secret, *Secretum singulare*: and says, that he had tried it with success in several suppressions of the *menses*, which were accounted desperate.

R. *Pulegii*, m. ij*fl*.

Artemisiae, m. j*fl*.

Betonic. & *Calamint.* aa m. j*fl*.

Sabin. m. iij.

Satureiae, *Meliss.* *Menth.* *Abrotan.* aa m. j*fl*.

Centaur. Minor. m. j.

Semin. Anisi, *Fenicul.* aa 3ij.

Radic. Petroselini, *Asparagi*, *Ajari*, aa 3vij.

Polypod. 3*fl*.

Helenii, 3*fl*.

Zedoariae, 3*fl*.

Diclamn. 3*j*.

Macis, & *Nucis Moschat.* aa 3*j*.

Caryopbillor. 3*fl*.

Aquar. Betonicae, *Pulegii*, *Artemisiae*, aa 1*lbij*.

Satureiae, 1*lbij*. Coq. f. in collaturâ infund.

Rhabarb. elef. 3vij. Stent per noctem, manè

f. fortis expressio & cum sacchar. f. q. coque
ad Syrupi consistentiam. Dosis ab 3*fl*. ad 3*j*.

Every one of these medicines are, in all cases, to be suspected; and in many dangerous: because the acrid and phlogistic quality of the savin frequently occasions floodings; obstinate vomitings; convulsions, or convulsive motions; &c. The syrup, such as has been described, is least dangerous: because the savin enters there, only in a small proportion: but it is a medicine too much compounded.

II. Wild cucumber, *Cucumis sylvestris*, *sive asininus*. This plant is a violent purge: and a very acrid dissolvent. Some authors think proper to employ it, in several different manners, for suppressions of the *menses*. In which case they order,

¹ Hieronymus Reusnerus. Ob- & Curation. Medicinal. à Wolffio seru. 194. In Sylloge Observat. edita.

1°. The decoction, which is made with two or three drams of the root for each dose.

2°. The juice exprest from the pounded leaves, which they suffer to depurate; and give in the dose of a dram, or a dram and half.

3°. The same juice inspissated to the thickness of an extract; and then known by the name of *elaterium*: of which the dose is from two to three grains.

These medicines are made ingredients in emmenagogue decoctions, syrups, bolusses, &c: but, as they are never employed without some danger; they ought not to be employed at all, unless with great caution: and, perhaps, after all, it would be more prudent never to employ them.

III. White briony, *Bryonia*, *sive vitis alba*. The decoction of the root of this plant is proposed in suppressions of the *menses*, in the quantity of two drams, for a dose: or the *fæcula*, that is to say, the sediment deposited by the exprest juice of the root, in the dose of ten or twelve grains.

These two medicines are little less irritating, or phlogistic, than the savin, and the wild cucumber. The most safe method, therefore, is not to employ them; or, at most, but in very small doses; and with very great caution.

IV. Dragonwort, *Dracontium majus* *sive Dracunculus*; and the cuckow-pint, *Dracontium minus* *sive Arum*. These two plants are acrid, caustic, and phlogistic; and consequently dangerous for internal use. On this account I would advise against listening to the authors who have recommended the seeds, or berries, of these plants, or the juice of the berries inspissated, and formed into pastils; in suppressions of the *menses*.

V. Black hellebore, *Helleborus niger*. The root of this plant may be used in suppressions of the *menses*, provided it be with discretion. It is proposed to take half a dram; and cut it into very short pieces. These pieces are put into an apple, which is afterwards baked at a fire. When the apple is well baked, all

the pieces of the hellebore root are taken out; and the apple is given to the patient to be eaten fasting; which is repeated every second day; and continued for some time. This medicine is much less dangerous than the preceding. It ought not, nevertheless, to be ever employed at all, and much less continued, but with the greatest discretion.

VI. Spanish flies, *Cantharides*. Hippocrates, or, at least, the author of the book, *De naturâ muliebri*, which is among the works that go under his name, advises to give, internally, in the suppressions of the *menses*, four, or even five, cantharides; after having cut off the head, feet, and wings. But this authority ought not to influence any body to pursue a practice so dangerous.

Instead of cantharides, the powder of earth-worms, *Lumbricorum terrestrium*, may be used with good success; and without hazard, in the dose of from half a dram to two scruples.

The powder of glow-worms, *Cicindelarum*; are likewise recommended in the same cases. But as these are more acrid than the earth-worms, it is proper to be more cautious in the use of this powder, and only to order it in smaller doses.

VII. Menstrual blood, *Sanguis ex menstruatâ mulier*. It is practised, in some provinces of Germany, to wash, in common water, a piece of the cloths used by women, who have the *menses*; and to give this water to those who have them not. There are even some physicians¹, who believe this practice serviceable; and who pretend to have experienced the success of it. For my own part, I confess, I doubt both the accounts they give, and more yet the too general consequences they draw from particular facts. But, although this practice appears to me as ineffectual, as it is disagreeable, I cannot esteem it as dangerous in any case;

¹ Daniel Ludovicus. *In Ephemerid. Natur. Curios. German.* Decur. i. Ann. 9 & 10. Obs. serv. 35. Andreas Myrrhen. *Ibid. cur. iii. Ann. 9 & 10. Observ. 215.*

at least unless the woman, who furnished the cloth, be unsound, have her blood infected, or be afflicted with some ulcer in the *uterus*.

C H A P. V.

Of the menses retained by some fault of conformation.

§. I. DESCRIPTION.

IN some cases the times of the returns of the *menses* are marked periodically, as if they were going to appear: the consequences make it even show clearly, that the blood must then be regularly discharged into the cavity of the *uterus*: and yet there is not, nevertheless, any appearance of it externally; because the passage is not free. It is this, which is to be understood, when it is said, the *menses* are retained in the *uterus* by a fault of conformation.

Observations prove, that the faultiness of conformation may arise from three different causes: 1°. From a membrane, or skin, placed crosswise in the *vagina*; which closes up its passage. 2°. From an excrescence formed in the cavity of the *vagina*; which fills, and stops it up. 3°. From a *cicatrix*, which connects together the *parietes*, or interior coat of the *vagina*; or the lips of the *vulva*: and which destroys the cavity.

I. The membrane has not, according to observation, always the same place. It is certain, that it is almost always at the entrance, or orifice of the *vagina*: but some pretend to have found it further inwards: and even at the orifice of the *uterus*. It is generally thin, and purely membranous: and there are but very few cases, where it is found dense, compact, and almost callous.

II. The place of the excrescences is yet more variable than that of the membranes. Commonly, they are even with the entrance of the *vagina*: but they may be further inwards; and sometimes adhere to the very orifice of the *uterus*. As they are found of a different nature; fleshy, fat, glandulous, and steatomatous; so they are also found of different magnitudes; large, middling, and small.

III. The *cicatrix*, which connects the *parietes*, or coats of the *vagina*, may happen in all the parts of this canal: at its orifice, in its length; at its internal extremity; and even at the orifice of the *uterus*. It is sometimes lax, and superficial; sometimes firm, and close; sometimes the surfaces opposed to each other, are only united in a very small compass; and sometimes in a larger. The lips of the *vulva* have been often observed, connected together in the same manner, by a preternatural *cicatrix*, so closely, that there was left only a very small opening for the passage of the urine.

All these several facts are established by incontestable observations; but it will be sufficient to point out the sources in the following articles, without enumerating the particulars of them. At present it is only proper to remark, that, in all these cases, there is no disorder, when the patients are not as yet of an age to have the *menses*. That when they attain this age; or when the disorder happens to girls that already have the *menses*; the retention of them is not very bad in the beginning, while there is but little blood collected in the *uterus*; but that gradually the accidents increase in proportion, as the blood is accumulated there. That, in the end, the belly swells, grows hard, and becomes painful: the *vagina*, and the edges of the *vulva*, tumefy: the inferior extremities become *ædematous*: the patients feel a heaviness; and have, every night, their face puffed up: and that nausea, a bad stomach, and a fever; at first erratic, and afterwards slow; are added to the other inconveniences: and unless the disorder be effectually

fектually cured, it terminates in a confirmed dropsy, gangrene, or consumption.

§. II. CAUSES.

I. The membrane, which crosses, and stops up the *vagina*, at least that which is found at the entrance of this passage, is the *hymen* itself; or, in other words, that kind of membrane, which is found naturally in all girls, at the orifice of the *vagina*; and which is an essential circumstance of their virginity. All the difference there may be, is, that, in the cases we have been speaking of, this membrane is intirely closed; whereas, in its natural state, an opening is left in the middle of it.

I am not ignorant, that¹ some have strenuously denied the existence of this membrane. I am sensible, moreover, that those have been laught at, who have admitted it; that attempts have been made to represent them, as credulous and visionary anatomists; and that it has been pretended, this membrane, or *hymen*, was never found in girls of any age whatever; or, in so few instances, that it ought to be considered as a fault of conformation, and preternatural.

But I know, at the same time, these assertions, po-

¹ Ludovicus Vassaeus. *Tabul. anatom. corpor. human.* Lib. vii. cap. 12. & quæst. 13.

anatom. corpor. human. Lib. vii. cap. 12. & quæst. 13.

Realdus Columbus. *De re anatom.* Lib. xi. cap. 16.

Marc. Anton. Ulmus. *De ate-
ro.* Sect. i. chap. 7.

Johan. Fernelius. *Physiolog.* Lib. i. cap. 7.

Hercules Saxon. *Praxeos
Medicæ.* Lib. iv. cap. 4.

Ambroise Paré. *Oeuvres de
Chirurgie.* Liv. iii. chap. 34. &
Liv. xxiv. chap. 49.

Franciscus Ranchinus. *De morb.
Virgin.* Seçt. i. cap. 4.

Franciscus Vallesius. *Lib. de
sacrâ philosophiâ,* cap. 25.

Nathanael Highmorus. *Corpor.
humani disquisit. anatom.* Lib. i.
Part. iv. cap. 4.

Horatius Augenius. *Tom. ii.
Epistol. & Consultat. Medicinal.* Lib. i.

Regnerus de Graaf. *De Mulier.
organis.* §. De Hymene.

Severinus Pinæus. *De notis vir-
ginitatis,* Lib. i. cap. 9.

Pierre Dionis. *Operat. de Chir-
urgie.* Demonst. 3.

Andreas Laurentius. *Histor.*

Jean Palfin. *Descript. des par-
ties des Femmes, qui servent à la
génération.*

sitive

sitive as they are, could never make impressions; if the least deference be paid to the judgment, and authority of those who have maintained the reality and universality of this membrane. For there may be reckoned in that number, ¹ Berenger de Carpi, ² Vesalius, ³ Fallopius, ⁴ Coiter, ⁵ Varolius, ⁶ Riolanus, ⁷ Veslingius, ⁸ Bartholin, and ⁹ several others, whose names will be found in the bottom of the page: or, in other words, all the more learned, and able anatomists of the sixteenth, and seventeenth centuries. At least, these peremptory assertions cannot have any influence at this time, when it is known, that ¹⁰ Laurence Heister, ¹¹ Frederic Ruysch, ¹² John Baptist Morgagni, and ¹³ James Benignus Winslow, all describe this membrane in the same manner; and all affirm, they have found it in every young girl, they have had

- ¹ Jacobus Berengarius Carpus, *in Isagoge anatomica.*
- ² Andreas Vesalius, *de corp. hum. fabrica.* Lib. v. cap. 15.
- ³ in Epistolâ ad Joachimum Roelants, *de radicis Chinæ usu.*
- ⁴ Gabriel Falloppius, *in Observat. Anatomic.*
- ⁵ Volcherus Coiterus, *in Tabul. anatomic.*
- ⁶ Constantius Varolius, *Anatom.* Lib. iv. cap. 4.
- ⁷ Johannes Riolanus, *Anthropogr.* Lib. i. cap. 16.
- ⁸ Johannes Veslingius, *Synagogmat. anatomic.* Cap. 7.
- ⁹ Thomas Bartholinus, *Anatom.* Lib. i. cap. 31.
- ¹⁰ Johannes Wierus, *Observat. Lib. i.* Et *de Lamiis. Lib. iii. cap. 20.*
- Archangelus Piccolhominus, *Praelection. anatomic.* Lib. iii.
- Scip. Mercurius, *delle Cemicre. Lib. i. cap. 2.*
- Franciscus Plazzonus, *de partib. generat.* Lib. ii. cap. 5.
- Adrianus Spigelius, *de hum.*
- corp. fabrica.* Lib. viii. cap. 18.
- Melch. Sebizi, *Exercit. Medic.* XLVII.
- Dominicus Panarolus, *Pennicoft.* V. *Obser. ultim.*
- Isbrandus de Diemerbroeck, *Anatom.* Lib. i. cap. 16.
- Johannes Swammerdamius, *de uteri muliebr. fabrica* in tabulis.
- Gerardus Blasius, *in Observat. anatomic.*
- Johannes Casparus Westphalus, *Ephem. Cur. Germ.* Dec. ii. Ann. 8. *Obser. v.* 215.
- Hermannus Fredericus Teichmeyerus, *Institut. Medicin. legalis,* & *forensis.* Cap. 4.
- ¹¹ Laurentius Heisterus, *in compend. anatomic.* Et *Ephem. Nat. Curios. Cent.* viii. *Obser. 69.*
- ¹² Fridericus Ruyschius, *Theat. anatomic.* iii. N° 15. vi. N° 1. vii. N° 60
- ¹³ Joh. Baptista Morgagni, *Adversaria Anatomic.* i. 29. iv. 23.
- Jacques-Benigne Winslow, *Exposit. Anatomique.* N° 653. occasion

occasion to examine. My testimony is scarcely requisite, after that of so many anatomists of the first rank: but I believe it may be, nevertheless, proper I should certify, that I have found it in the same manner, in all the young subjects, I have had an opportunity of dissecting.

The inference must, therefore, be, that those who deny ever to have seen it, must either have examined only such girls as have lost their virginity; or that, prepossessed with the false notion, the *hymen* must always close the entrance of the *vagina* intirely, they have mistaken it at the time it was before their eyes; and have even sometimes given the description of it, without mentioning the name. This appears most probable, and may, as it seems, be even concluded from their own accounts.

To prevent, therefore, this inconvenience for the future; and to fix the notions, on this matter, in such a manner as to remove all doubt, I think it proper to describe the *hymen* in its natural state, according to the anatomists before quoted; and as it is really found in the subjects.

The *hymen* is formed by the internal membrane of the *vagina*, which turns back at the orifice of this passage; and forms, by its folding, a kind of annular binding, fixt to the whole circumference; pretty broad towards the lower part, near the *anus*; narrower on the sides; and very narrow in the upper part, behind the *urethra*. As this kind of annular binding is formed of the same membrane as lines the inside of the *vagina*, so the same irregularities are observed on both these surfaces, as on the rest of the *vagina*. This membrane is of some thickness at its edge, where it is fixt to the orifice of the *vagina*: because there is, in that part of it, a *stratum* of the cellular substance of the *vagina*, betwixt its two *lamina*. But this *stratum* is lost in the further extension of the membrane: and its two *lamina*, which are then brought nearer together, inclose only some small blood-vessels.

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In its * natural state, it is perforated towards the middle, with an opening, commonly circular; but sometimes oval, oblong, or irregular: the magnitude of which varies in different subjects; and yet more, in different ages of the same subject. Morgagni affirms to have found, in a girl, this opening separated into two, by a membranous fillet; which extended directly from the top to the bottom. He adds, that Vesalus has observed the same thing twice: which makes him presume, this conformation was not very rare; and that it had given room for some authors to call the *hymen* as they do, the pillar of virginity, *columnam virginitatis*.

To return, however, to our subject, it may be concluded, from this description, 1°. That it may sometimes happen, the opening, which remains in the middle of the *hymen* ¹, may be only one, as it ought to be, but extremely small. 2°. That, at other times, a membranous fillet, or column, may part this opening into two²; and form, instead of one of middling magnitude, two very small lateral openings. 3°. That sometimes this first fillet, which is perpendicular, may be cut, or crost, by one, or several, similar fillets, placed horizontally: which must divide the common opening of the *hymen* ³ into several small holes, in the form of a sieve. 4°. That, moreover, in some cases, the *hymen* may be ⁴ intirely closed; and without any open-

ing:

* The jagged remains of this membrane, torn in the loss of virginity, form the *carunculae myrtiformes*.

¹ Ambroise Paré. *Oeuvres de Chirurgie.* Liv. xxiv. chap. 49.

Petrus Forestus. *Observat.* Lib. xxviii. *Observat.* 55.

Johannes Schenckius. *Observat.* *Medicinal.* Lib. iv. *Observ. 97.* ex Adversariis Dryandri.

Daniel Sennertus. *De Morb. Mulierum,* Part. i. Sect. i. cap. 3. Gerardus Blasius, in *Observ.*

Medicis rarioribus.

² Johannes Schmidius. *Mijcell. Cur. German.* Decur. i. anno 3. *Observ. 24.* Et Annis 4 & 5. *Observ. 157.*

³ Guillelmus Fabricius Hildanus. *Cent. iii. Observ. 60.*

⁴ Antonius Benivenius. *De abditis marb. & sauit. causis.* Cap. 28.

Casparus Wolphius, in *Observat.* apud Schenckium.

Johannes Wierus. *De praefigis daemonum.* Lib. ii. cap. 38. Rembertus

ing: and that it consequently will then stop up intirely, the passage into the *vagina*.

In the three first cases, of which we have quoted several instances, the communication of the *vagina* with the *vulva* subsists; but is very narrow, and much obstructed. In the last case, of which instances are yet more common, this communication is wholly intercepted. The girls, in whom these faults of conformation are found, were called by the Greeks ἀπόγνα. The physicians who have written in Latin among us, have given them the name of *imperforatae*, *clausæ*, or *velatæ*; and the Italians that of *coperchiate*. The Romans had no appropriated word to signify this state; and they exprest it by some circumlocution. It is thus, that ¹ Cicero, speaks of a dream, where a woman was seen, *quæ obsignatam habebat naturam*: and that ² Pliny relates, Cornelius the mother of Gracchi, *concreta genitali nata fuerat*.

It is true, that what has been said does only account for the origin of the membranes, that are at the orifice of the *vagina*: since it is there, the natural situation of the *hymen* is fixt. But it is there also, these membranes are almost always placed: at least all those were so, of which the accounts have been above cited. But if any have been found further in the *vagina*, and beyound the *hymen*, as ³ Ruysch, and a German

Rembertus Dodonæus. *Medicinal. Observat.* Cap. 34.

Bartholomæus Cabrolius. *Observat. Medicar.* 23.

Casparus Bauhinus. *Theatr. Anatomi.* Lib. i. cap. 39.

Hieronymus Fabricius ab Aquapendente. *Operat. Chirurgic.* Cap. 82.

Guillelmus Fabricius Hildanus. Cent. iii. *Observ. 60. exempl. 1 & 2.*

Jobus à Meeckeren. *Observ. Medico-Chirurg.* Cap. 55. *Acta Eruditorum Lipsiensia.*

Anno i. Septembr. *Observ. 6.*

Johannes de Muralto. *M. N. Cur. Germ. Decur.* ii. Ann. 3. *Observ. 151.*

Cornelius Solingen. *De arte obstetriciâ.*

Daniel Meno Matthiæ. *Observ. 6.*

François Mauriceau. *Observ. sur la grossesse.* *Observ. 231.*

¹ Cicero. *De Divinat.* Lib. ii.

² Plinius. *Histor. Natur.* Lib.

vii. cap. 16.

³ Fridericus Ruyschius. *Observ. Chirurgic.* 22 & 23.

Simon

German physician, have asserted; and others even at the orifice of the *uterus*, as it seems may be inferred from an account in the ¹ *Memoirs of the academy of sciences*; this may, indeed, well increase the difficulty; because there must be supposed, in such cases, a faultiness of conformation more remote from natural order, and consequently more monstrous; from whence it arises, that instances of them are but very rarely found. But, in fact, no valid objection would be yet afforded, if it be duly considered, that there is no cavity of the body, which is not subject to similar disorders; and that these membranes may well be found, even in the interior part of the *vagina*; since it is certain, such have sometimes been found in new-born children, growing in the extremity of the *rectum*, and stopping up the fundament: which is not less against the order of nature.

II. The excrescences which fill, and close, the passage into the *vagina*, are of three kinds.

Sometimes they are in the manner of ² fungusses, or mushrooms, which grow in ulcers of the *vagina*, that are foul. Thus, venereal ulcers, or even simple ulcers of the *vagina*, oft give rise to fleshy excrescences, which are soft and spongy; or hard and schirrous; large, or small; and round, or long; according to the quality of the lymph, that forms them, the continuance of the disorder, or the place where they are seated.

Sometimes these excrescences ³ are formed, gradually,

Simon Scultzius. *Misc. Nov. Curios. Germ.* Dec. i. Ann. 3.
 Observ. 3.

¹ *Memoires de l'Académie des Sciences. Ann. 1705. Histoir. Pag. 52.*

² Nicolaus Tulpinus. *Observat. Lib. iii. cap. 33.*
 Christophorus Væterus. Schol. Obstetric. Part. ii. cap. 19.

Acta Berolinensia. Dec. ii. Vol. v. pag. 85.

Acta Eruditorum Lipsiensia. Ann. 1726. Octobr. pag. 480.

³ Antonius Benivenius. *De abditis morb. & sanat. causis. Cap. 79.*

Johannes Wierus. *Observat. Lib. i.*

dually, by the enlargement of the ¹ *carunculae myrtiformes*; or of some one of the *rugæ* of the *vagina*; or by the tumefaction of some one of the vaginal glands; or of some of the adipose *cellulæ* of its *parietes*: and these inlargements, or tumefactions, always come from some obstruction, or callosity; which, by detaining the lymph, gives rise to the inlargement, or the tumefaction of the parts where it stagnates.

In these cases, the excrescences are generally nervous, glandular, or adipose; large, or small; and soft, or hard; according to the nature of the tumefied part; and the degree of inspissation of the lymph, which tumefies it.

Sometimes these excrescences are a kind of wens; or incysted, and steatomatous tumours; which are formed in the *parietes* of the *vagina*; and project into its cavity: and in this case they are always soft, and have their magnitude determined by the duration of the disorder, or by the quantity of the lymph, which forms the tumour by way of congestion.

These excrescences, of what kind soever they may be, happen the most frequently at the orifice of the *vagina*: because that place is most exposed to exultations; and provided with *carunculae myrtiformes*, subject to grow large; which does not, however, prevent their happening, also, sometimes, as accounts show, further in the *vagina*; and even at the orifice of the *uterus*. Since these parts may be exposed to

Acta Curiosorum Naturæ. De-
scr. iii. Ann. i. Observ. 144.

Nicolaus Tulpus. Observat.
Lib. iii. cap. 34.

I ordered to be cut off, in the case of a woman forty years old, an adipose tumour of a spherical figure, that adhered to one of the sides of the *vagina*, by a considerably large pedicle; and weighed two pounds.

¹ The anatomists, who deny the existence of the *hymen*, pretend, that the *carunculae myrtifor-*

mes are of a primitive conformatiōn in women: but, as they are deceived in the first article, so they are in the second. When they find the *hymen*, they never find the *carunculae myrtiformes*: and when they find these *carunculae*, they find no *hymen*: which proves, that the *carunculae* are only the jagged remains of the torn *hymen*: which, by rolling themselves up into three or four little balls, form three or four *carunculae* of this kind.

ulcers,

ulcers, repletions, and incysted, and steatomatous tumours.

III. Lastly, the *cicatrices*, which connect and unite together the *parietes* of the *vagina*, or the lips of the *vulva*; and which destroy the hollow of these cavities; are always the effects of exulcerations, or divisions of the substance of these parts; when care is not taken to deterge them, and keep them at a distance, by a proper dressing. It is thus, ¹ venereal cancers; ² excoriations, caused by the acrimony of the urine in young children; large pustules of the small pox; ³ accidents of burning; divisions, occasioned by any ⁴ wound, or by ⁵ hard labour, &c; have often given rise to these preternatural unions of the lips of the *vulva*, the sides of the *vagina*, and even the orifice of the *uterus*: as appears from the accounts that have been quoted.

As the lips of the *vulva*, and the orifice of the *vagina*, are the parts most exposed to lacerations, wounds, ulcers, &c; they are consequently the places the most liable to be united, and connected, contrary to the natural conformation. But the same accident may happen, also, further in the *vagina*, and some-

¹ Antonius Benivenius. *De abditis morb. & sanat. causis.* Cap. 31.

² Ibrandus de Diemerbroeck. *Anatom.* Lib. i. cap. 26.

Johannes Nicolaus Pechlinus. *Observat. Medico-physicar.* Lib. i. cap. 25.

³ Paulus de Sorbait. *Ephem. Curios. Natur. Decur.* i. Ann. 3. Observ. 273.

⁴ Gregorius Horstius. *Operam.* Tom. ii. Lib. iv. Observ. 55.

⁵ Marcellus Donatus. *De medicā bistoriā mirab.* Lib. vi. cap. 2.

Johannes Riolanus, pater. *Art. lenē medendi.* Sect. iv. Tract. 2. cap. 1.

Casparus Bauhinus. *Theatr. Anatom.* Lib. i. cap. 39. Et *De Hermaphroditis.* Lib. i. cap. 38.

Felix Platerus. *Observat. Lib.* i. pag. 258, 259.

Guillelmus Fabricius Hildanus. *Observat. Centur. vi. Observ.* 67.

Johannes Riolanus, filius. *Enchirid. Anatom.* Lib. ii. cap. 37. Et *Anthropograph.* Lib. ii. cap. 35. pag. m. 197.

Thomas Bartholinus. *Historiar. Anatom.* Cent. ii. Histor. 31.

Rudolphus Jacobus Camerarius. *Misc. Nov. Curios. German.* Centur. ix. & x. Observ. 73.

Johannes Conradus Beckerus. *De vaidoxiōtia inculpatā.* §. xviii. & seqq.

times even in the orifice of the *uterus*; supposing there happen previously, in the same place, any of the accidents, of which we have been speaking.

To proceed, this union must be more close, or more loose; deeper, or more superficial; and more or less extensive; according as the exulcerations, excoriations, or wounds, which have preceded, have been more or less large; more or less neglected, &c: which must introduce a considerable variety in the particulars of these circumstances.

§. III. DIFFERENCES.

I. A principal difference, among the faults of conformation, that may happen to the *vulva*, or the *vagina*, arises from their nature. It has been above proved, that these faults may be of three kinds: that most frequently, they are owing to a membrane, that closes the passage of the *vagina*, by coming across it: sometimes to an excrescence, which fills, and stops it up: and lastly, at other times, to the uniting of the *parietes* of the *vagina*, or of the lips of the *vulva*, which destroys the passages.

II. Another difference, among these faults of conformation, is taken from their origin: for some are from the time of birth, and belong to the primitive conformation: as the membranes placed across the *vagina*: and others come from accident, after the birth: as the excrescences, which close the passages of the *vagina*; and the *cicatrices*, which unite the *parietes* of the *vagina*, or the lips of the *vulva*.

III. A third difference, among these faults of conformation, arises from the nature and number of functions, which are injured by it. In order to judge of this matter, consideration must be had to the five different functions, that these male conformations may affect menstruation, coition, conception, delivery, and the discharge of the urine.

1^o. *Menstruation*. Sometimes the *mensæ* are discharged freely enough, notwithstanding these obstacles:

cles: because they have a sufficient passage. Sometimes they are only discharged slowly, and with difficulty; because the passage is straiter: and sometimes they are not discharged at all; because the passage is intirely stopt up.

2°. *Coition.* These obstacles are constantly injurious to it, when they are in the *vulva*, or at the orifice of the *vagina*: but they are not so, or only in a small degree, when they are at the orifice of the *uterus*; or even placed considerably far in the *vagina*.

3°. *Conception.* It is always less easy, on account of these obstacles, of whatever kind they may be: but it is, nevertheless, possible, so long as they do not cut off all sort of communication with the *uterus*; or, at least, do not prevent the use of coition. There are, moreover, accounts, which show, that conception has taken place sometimes, even in these cases.

4°. *Delivery.* The faults of conformation, which only render the passage narrower, make the delivery more difficult, more long, or hard: and those, which intirely close it, make all delivery impossible; at least, unless by the consequences themselves of the tumefaction of pregnancy, the *cicatrices*, which unite the *parietes* of the *vagina*, or which cause a stricture there, are either unloosened, or stretched of themselves, before the time of delivery: as some accounts furnish instances.

5°. *The discharge of the urine.* There is no reason to fear, that those obstacles, which are in the *vagina*, or at its orifice, may be injurious to the discharge of the urine: because the opening of the *urethra* is placed on the outward side of it. As to those, which may happen in the *vulva* itself, it is very rare, that the urine does not preserve a sufficient passage: and

* Guillelmus Harveus. *De Curios. Natur.* Dec. ii. Ann. 7. in appendice, Observ. 9. D. 2.

Thomas Bartholinus. *Histo- Mémoires de l'Académie des riar. anatomic.* Cent. v. Hist. 43. Sciences. Année 1712. Hist. Franciscus Paulinus. *Ephem.* pag. 37.

I know of only ¹ one account that asserts the contrary.

6°. There are many other cases more complicate, where it happens, that the faults of conformation, of which we have spoken, injure two, three, or four of these five functions, at the same time. But it seems unnecessary to dwell on the particular examination of them: because these combinations have nothing, but what is easily conceived, when the simple facts, of which we have been speaking, are known.

§. IV. SYMPTOMS.

1°. The faults of conformation, of whatever kind they may be, do not cause any accident in girls, so long as they are not of an age to have the *menses*: because they do not injure any function.

2°. They continue, without causing any accident, even when the *menses* do take place, supposing they do not intercept the discharge, or so long as the girls are not called upon to perform other functions; that is to say, so long as they remain virgins.

3°. If, however, the girls come to have commerce with men, it may then be, that these faults of conformation, either hinder coition, conception, delivery, or all three at the same time, according to their situation, and nature.

4°. But if these faults of conformation close intirely the *vagina*, and detain the *menses*, the accidents, which they will cause, must begin to appear, as soon as the *menses* begin to take place. These accidentes, at first, give reason to believe, that there is a difficulty in the patients first having the *menses*: because they see those periodical inconveniences, which mark the approach of the *menses*, return every month, without their ever appearing to be discharged.

5°. These suspicions are augmented by the collection of blood retained in the *uterus*, swelling, distend-

¹ Apud. Gregor. Horstium, Operum. Tom. ii. Lib. iv. Ob-
v. 55.

ing, and rendering it painful : and these new symptoms are, for a long time, regarded as proofs of obstructions, that are supposed to be in the *uterus*.

6°. But at length the belly swells so greatly ; and the blood contained in the *uterus*, in consequence of weighing on the *vagina*, constrains so much the return of that, which comes back from the *vulva*, there must frequently result a kind of cedematous tumefaction ; which gives occasion to the forming new suspicions.

7°. As the tumefaction in the belly answers to the place of the *uterus*, and has all its extent, and the same circumscription, it is not surprising, that the patients should be often suspected of being with child.

8°. In proportion as the *uterus* tumefies, it presses more and more the iliac veins, which retards the return of the blood, that should come back from the inferior extremities ; and cannot fail, in the end, to bring an oedematous swelling of the feet ; and even of the legs, and thighs.

9°. When the *uterus* cannot any longer dilate itself sufficiently, to continue to receive freely, every month, the *menses*, which are ready to be evacuated, the patient must be in the same state, as if the *menses* were suspended : and must, consequently, as has been said in the fourth chapter, fall into a distaste for food ; the *pica* and *malacea* ; bad digestion ; nausea ; vomitings ; &c.

10°. It must necessarily follow, that the blood evacuated into the cavity of the *uterus*, must then gradually contract, from the heat of the place, a degree of putrefaction ; which will be greater, or less according to the quality and state of the blood. And correspondently to this the blood, which is discharged from the *uterus*, in these cases, by the means of incision, is, as will be related a little lower, always corrupted, foetid, and half purulent.

11°. The pains in the *abdomen*, with which the patient is afflicted, the bad digestions she suffers, the mixture of the parts of putrid blood, with which the

lymph, that circulates in the lymphatic veins of the *uterus*, is charged, must all contribute to cause a feverish motion, commonly continued, but slight, and subject to irregular, and odd paroxysms, in consequence of the concurrence of different causes, which render various the returns, and the violence of it; and it is this which characterises the slow erratic fever.

12°. In women, and girls, who already have the *menses*; and in whom these faults of conformation only come from an accidental cause, and can, therefore, only be of the second, or third kinds; nearly the same symptoms are found to occur, when these faults close up the *vagina*, or the *vulva*, sufficiently to detain the *menses*; but they are found to occur then more suddenly, and with greater violence; because the *menses*, which have taken place a long time, and which are more copious, have sooner filled the cavity of the *uterus*; and bring on more quickly, and in greater degree, all the accidents mentioned.

§. V. DIAGNOSTIC.

I. The faults of conformation, which are from the time of birth, or, in other words, the membranes placed across the passage, are not to be perceived in children; at least, unless they be in the *vulva* itself, of which there are no instances. For the most part, those which are in the *vagina* are only discovered when the girls, having attained the age of puberty, begin to have the *menses*; if the faults of conformation occasion the discharge of them to be intercepted: or when they come to have commerce with men; if these conformations, without stopping the *menses*, prevent, nevertheless, coition.

They are often not discovered, even when they prevent the discharge of the *menses*; or, at least, not till very late; and after having, a long time, given suspicion, that the patients are pregnant; though with-

¹ Johannes Wierus. *De præstigiis Dæmonum.* Lib. ii. cap. 38.
ius secundus.

without cause; or are afflicted with a dropsy, from which they are free. And when the girls are married, it sometimes happens, also, that the inexperienced husbands are a long time before they can comprehend what it may be that opposes their consummation, without having the courage to communicate the cause of their uneasiness to any person.

Whenever, nevertheless, a girl appears not to have the *menses*, notwithstanding she finds herself to have every month the common symptoms of menstruation, and that her belly seems to grow big, from day to day, without cause, there is then reason to have suspicion of some fault of conformation. But, whenever this first suspicion prevails in any degree, the simple examination of the exterior state of the *abdomen* must furnish the elucidation that may be desired: for if the *uterus* alone appear swelled, and forming a tumour that is spherical, equal, and soft; and no motion be perceived in it, although it be pressed; it is a criterion, that there is no child in the case; and that the *uterus* must be full only of water, or blood; which is a sufficient ground of reason, for examining the passage of the *vagina*; as the state of it will afford the means of a full decision of the matter.

II. Among the faults of conformation, that are accidental, the excrescences of the *vagina*, which are produced gradually, by way of congestion, may be a long time concealed in girls where they are formed, and in married women likewise; if they be formed in the further part of the *vagina*. As, therefore, it scarcely ever happens, that these excrescences are large enough to intercept the *menses*, or, at least, not till after a long space of time, women have frequently tumours of this kind in the *vagina*, such as wens, or tubercles, without the least suspicion of it.

Bartholomæus Cabrolius. *Obseru. Medic.* 23.

Exempl. 3.

Guillelmus Fabricius Hildanus. *Centur. iii. Obseru.* 60.

Johannes de Muralto. *Ephemer. Cur. Natur. Decur. ii. Anno 151.*

III. It is not so, however, of *cicatrices*, which injure the lips of the *vulva*, or the *parietes* of the *vagina*. As they are, always, the consequence of a laceration, exulceration, wound, or burn of these parts; which has been imprudently neglected; it is impossible not to be apprized of them. This is, indeed, of all the faults of conformation, that of which the patients are the best informed.

IV. Of whatever nature may be the faults of conformation, and in whatever part they may be found, nothing is more easy, when there is the least suspicion of them, than to obtain a certainty of their existence; and to discover, at the same time, their nature, and their place. There is nothing more required, than to examine the *vagina*, by introducing the finger into it, rubbed previously with oil, or pomatum. But if that be not sufficient, a *speculum uteri* may be used, or some other more simple instrument for dilatation, in order to be able, by means of the dilatation of the *vagina*, to judge, by the sight, of what the touch could not decide.

V. With relation to the causes, it is almost unnecessary to bring them in question: because this knowledge has very little influence on the prognostic, or the method of cure. If, nevertheless, it be regarded as a material subject of enquiry, some light may be procured on this article, by comparing, with the theory above given, what may have been discovered of the nature and kind of the disorder; and what the patient may be acquainted with, relative to the causes which have preceded it.

§. VI. PROGNOSTIC.

The prognostic turns upon two points, the danger into which the faults of conformation may throw the patients; and the difficulty which there is to find a remedy for them.

I. The danger can only arise from the retention of the *menses*, in girls, and in women, who are not with

child; and, from the difficulty of delivery, in those who are.

1°. With regard to the retention of the *menses*, the deplorable accidents, into which it may bring the patients, have been shewn before. Therefore, the more the faults of conformation are capable of retaining the *menses*, the more reason there is to apprehend danger.

It follows from thence, that the membranes, which close the *vagina* intirely, without leaving any passage at all, are always more dangerous, than those that are perforated with any holes, or in which some opening remains; and which consequently do not close up so perfectly the *vagina*.

That the membranes, which close the *vagina* intirely, are more dangerous than the other faults of conformation, such as excrescences, and *cicatrices*; which seldom ever intercept the passage of the *menses*, in so absolute a manner.

Finally, that the *cicatrices*, which unite the lips of the *vulva*, or the *parietes* of the *vagina*, are generally more dangerous than the excrescences: because they leave less passage to the *menses*.

2°. With regard to the difficulty of delivery, the faults of conformation, most to be feared, are those, which are most repugnant to giving way, and being surmounted.

From whence it results, that, all other things being equal, the membranes, that are dense, compact, and callous; are more dangerous, than those which are fine, thin, and easy to be torn.

That the little superficial excrescences, which are fat, or soft, are less dangerous than those, which are large, hard, and sibirrous.

Finally, that the *cicatrices*, which are lax, superficial, and of small extent, are less dangerous, than those which are close, strait, and large.

II. The difficulty of the cure depends principally on that of the operation; which must be performed, to remedy the faults of conformation.

Thus,

Thus, the membranes, that are easy to be cut, are, of all the faults of conformation, the most easy to be cured; especially, when they are at the entrance of the *vagina*: for the operation becomes more difficult, when they are deeper.

Thus the excrescences are more difficult to cure: because there is most trouble in taking them away, either by the knife, or corrosives: particularly when they are big, deep, scharrous, or connected by a large and thick pedicle.

Thus the *cicatrices* are very difficult to cure; because it is very difficult, to be able to dissect two membranes conjoined together: especially when they adhere closely in a large extent, and at the further part of the *vagina*.

III. I do not apprehend it to be necessary here, to bestow any consideration, either on the obstacle, the faults of confirmation may afford, to the discharge of the urine; because it has been already remarked to be a very rare case; or the prevention of coition: because it should not have a place in the enumeration of dangers; although it is an evident cause of barrenness; and must, on that account, be regarded as a real disease in married women.

IV. But there remains, among the several consequences, that the faults of conformation may have, two very dangerous cases, of which it is proper to take due notice. The one, when the excrescences of the *vagina* become painful, and subject to frequent shootings; and threaten to turn cancerous: the other, when the blood, detained in the *uterus*, and *vagina*, compresses these parts; and stops the course of the blood in them to such a degree, that there is reason to apprehend a mortification: and this case is more common; especially when it has been too long neglected to procure a passage out for the blood, which stagnates in the *uterus*.

§. VII. *Method of cure.*

Though the faults of conformation, which detain the *mensæ*, have great relation to each other, they require, nevertheless, methods of cure so materially different, as to render it necessary to explain them separately.

I. To imitate the practice of Hippocrates, nothing should be employed to destroy the membranes which close the *vagina*, but *escarotics*. In order, however, to succeed, such as are more efficacious, than those he proposes, should be employed. But it is now a long time since it has been well understood, that the use of these remedies tends only to render the cure tedious, difficult, and dangerous. Every body agrees, at present, that there is no way so quick, and safe, as to open these membranes by incision.

To this end, the patients are placed on the edge of a bed, or seat; and, if there be any reason to mistrust their resolution, their hands and feet should be tied in the same manner as in the operation for cutting. After which, the lips of the *vulva* being separated, an incision is made in the membrane, which presents itself, from the top to the bottom, with a bistury, or a large lancet. When this membrane is thin, one longitudinal incision is sufficient: because the sides either tear, or are effaced of themselves: but when it is hard, callous, or thick, another must be made cross-wise; in order to render the entrance of the *vagina* perfectly free, by this kind of crucial incision.

It is rare, that the incision occasions any haemorrhage: because the blood-vessels, which supply this kind of membranes, are neither numerous, nor large. It is, nevertheless, useful to have some astringent ready; as dragons blood, bole, or alum, reduced to powder, and beaten up with the white of an egg; in order to be used, if there be occasion, by dipping in it compresses, with which the entrance of the *va-*

¹ Lib. de Sterilibus: Et Lib. ii. De morbis mulierum.

vagina is to be covered. If there happen to be no haemorrhage, as there seldom ever will in this case, an anodyne digestive should be used at first, composed of the yolk of an egg, turpentine, and oil of roses; and spread on pledgets, which are put over the *parietes* of the *vagina*; and continued till the perfect cure: which will generally be made in a short time.

In girls, with whom the *menses* have been retained for some time, the membrane, which stops them, is strongly forced outwards: which occasions its presenting itself better; and being more easily cut: but the blood, nevertheless, which begins to flow out as soon as the incision is begun, often embarrasses, and obstructs the operator. The most short method, in this case, is to let it run out; and even, if there be occasion, to set the patient on her feet, in order to facilitate the discharge; to wipe the *vagina* afterwards; and to finish the operation, at last, with the proper circumspection. But, in this case, it is necessary, after the operation, to make injections into the *vagina*; and even into the *uterus*, with barley water, and a little honey of roses; which must be repeated from time to time, at least once a day. There may even be substituted, if it be necessary, some more deterfive injection; as the decoction of the leaves of agrimony, horehound, or birthwort, with the honey of roses.

When the membrane is not placed at the entrance of the *vagina*, but further in it, the operation becomes more difficult; the *parietes* of the *vagina* must be then opened, and kept distended, by some dilating instrument, or a *speculum uteri*: the bistury, or lancet, made use of, guarded by a fillet of linnen; which only leaves the point bare; and lastly, the incision made with care, in proportion as there is occasion to perform it, in a place more deep, and more narrow. But, these things being excepted, it must be conducted, in all other respects, as has been already directed.

II. If *escarotics* be not proper to consume the membranes, which close the *vagina*, they are yet less proper

per to take away the excrescences that stop it up ; because that their largeness occasions them to resist yet more to the action of *escarotics*. It is not more fit, to endeavour to extract these excrescences, as polypusses are sometimes extracted from the nose ; for these kinds of extirpations are always dangerous. The only practice, which is in use, and is safe, is to take them off, by cutting them.

When these excrescences are at the entrance of the *vagina*, and they may be taken hold of with the left hand, it is easy to cut them, by using, at discretion, scissars, or a bistury, according to the bigness of the pedicle. But it is necessary to take great care, to be certain of the position of the instrument at each stroke, before it be made to act. The operation is more difficult, when the excrescence is further in the *vagina* ; as well, because it cannot then be held in a due position by the hand ; as that it is necessary always to have recourse to forceps, or to crochets : because the place, where there is occasion to perform the operation, is too narrow, even notwithstanding the assistance of the *speculum uteri* : which should never be neglected to be used for the dilating the *vagina*.

The excrescences of the *vagina* may be almost always cut, without making any ligature on their neck, or pedicle : because this operation seldom brings on any considerable hæmorrhage. It is proper, nevertheless, to be provided, before hand, with some astrigent ; as that we have mentioned in the preceding article ; and even with a piece of vitriol, that may be applied occasionally to the vessels which furnish the most blood. Nevertheless, if the red, or livid colour of the excrescence, or the varicous dilatation of the vessels, which are on its surface, give reason to apprehend the incision may be followed with a too great loss of blood, it would be prudent, in such case, to make a strong ligature on its pedicle, by means of a double lace, which should be brought round the body of the excrescence ; and tied fast about its base.

After

After the operation, the first dressing should be made with dry lint: or, if there be any hæmorrhage, with large compresses, charged with some astringent. The wound is afterwards dressed with common digestives; and, when the quantity of *pus* diminishes, with Arcæus's balsam; which may be mixed, towards the end, with a little green balsam, to render the flesh more firm: or a little brown unguent, to corrode it, if it be not sound. But if, in the beginning, the suppuration be too copious; and the wound become foul, and putrid; in order to deterge it, the injections, proposed in the preceding article, may be used; to which may be added, a little vulnerary water, or some drops of tincture of myrrh.

III. The superficial *cicatrices*, which make the lips of the *vulva* cohere, unite, for the most part, only the exterior edges. In this case, by introducing a channeled probe into the opening which remains; and holding this probe steady in the line of union of the two lips, it is easy to direct the bistury, by the help of the probe; and to divide them in a very safe manner. In other respects, this wound is to be dressed in the same manner, as has been before explained.

With regard to deeper *cicatrices*, which connect the parietes of the *vagina*, sometimes they leave a passage of communication, and sometimes not. In the first case, it may be attempted to dilate gradually the remains of the passage. The trial is generally long, and often in vain, but never attended with any danger. When this method is pursued, it is begun by softning the *cicatrix*, by fomenting it several times a day, with a strong decoction of the roots of mallows, yellow mallows, water lily, linseed, &c: even linnen, or fine sponge, dipt in this decoction, may be kept applied within the *vagina*. When it is judged, that the *cicatrix* is sufficiently softned, a root of gentian; or, what is better, a slice of prepared sponge; may be introduced into the passage, which remains, without discontinuing the use of emollient fomentations: and, in proportion as the passage opens, larger and larger roots

roots of gentian, or slices of sponge, may be employed, till a proper dilatation has been procured.

This expedient can be of no use, when the *cicatrices* leave no degree of communication. It is requisite, in this second case, to have recourse to the operation; which holds good, even with respect to the first, when it is perceived to be lost trouble to seek any other remedy. As this operation is nice, and must of course be long, prudence exacts, that the patients be secured, and prevented from making irregular motions, by tying them, as has been mentioned in article the *first*.

After having taken this precaution, the cohering membranes must be begun to be divided with a bistory, or more properly separated with a dissecting knife; which is always difficult, when these membranes are united for a great extent. There is scarcely occasion for a dilating instrument, if the operation is to be performed at the entrance of the *vagina*: but there is a necessity for employing one, if it be further within. After the operation, the first dressing is to be made with lint, dry; or charged, if there be occasion, with some astringent; common digestives are employed afterwards; and at last, the balsam of Arcæus, either alone, or mixt with a little green balsam, as there may be occasion.

IV. When the membranes, excrescences, or *cicatrices*, are placed quite at the orifice of the *uterus*, there are no means of remedy to be had. No surgeon can undertake to conduct rightly the bistory at this depth, and in this obscurity: nor, consequently, can be rash enough, to make incisions, blindly, in parts so delicate as the orifice of the *uterus*; of which the wounds may be fatal; and are so, indeed, almost always. The only measure, that can be taken, is, to leave to nature the cure, or, at least, the alleviation of the bad consequences to the patients. There is nothing to be apprehended from them, if the *uterus* be empty; and, if it be full of blood, from the retained *menses*; or what is more rare, but not, however, without instance, if it contain a child, of which it must be delivered;

there

there is room to hope, that, in consequence of its own dilatation, it may open, at last, of itself; and overcome the obstacles that stop up its oriifice: the possibility of which is confirmed by ¹ accounts.

Precautions necessary to be taken in the performance of the operations which have been spoken of.

I. These operations should never be undertaken, but after having bled, and purged the patients some days before. A longer preparation is necessary, when the extirpating excrescences, or dissecting *cicatrices*, are in question: particularly, if the patient be of a bad constitution; or the retention of the *menses* have extenuated them; or brought on bad accidents.

II. When there is only a simple stricture, or contraction of the passage, caused by a *cicatrix* in the *vagina*, it is not fit to have recourse hastily to the operation. Supposing, even, that the patient was actually with child, it is proper to see, if, in the course of pregnancy, as the *uterus* enlarges, rarefies, and dilates, the same changes may not happen proportionably in the *vagina*: in which its cavity would open of itself; and there is room to hope for this, after the instances which some ² accounts afford.

III. In every case, it is always time enough to have recourse to the operation, which may be performed

¹ Johannes Riolanus. *Anthro-*
graphi. Lib. ii. cap. 35.

Stephanus Blancardus. *Collec-*
tan. Medic. physic. Centur. iii.
Observat. 56.

Mémoires de l'Académie des
Sciences. Anno 1705. Histoire,
pag. 52.

² Aristoteles. *De Generatione*
animalium. Lib. iv. cap. 4.

Franciscus Paullinus. *Miscel-*
lanea Curiosor. Naturæ. Decur.
ii. Anno 7. in *Append. Decad.*

ii. Observ. 9.

Michael Pauli. *Miscell. Cu-*
riosor. Natur. Decur. iii. Anno
7 & 8. Observ. 83.

Thomas Bartholinus. *Histo-*
riar. anatomic. Centur. v. Histor.
43.

Guillelmus Harveus. *Exerci-*
tat. de partu. pag. 518.

Mémoires de l'Académie des
Sciences. Anno 1712. pag. 37.
de l'Histoire.

without danger, even in the last months of pregnancy. I only advise, not to defer it till too late, for fear the inflammation, which the operation may bring on the *vagina*, and which would contract the cavity, may render the labour more hard. My opinion is still more oppugnant to the delaying it, till the time of delivery itself: because it is to be feared, that the vain efforts the child would be suffered to make against an obstacle, that it could not surmount, might be fatal both to itself, and the mother.

IV. In this operation, great care must be taken, not to wound the coats of the *vagina*. Wherefore, when this membrane is to be cut, it is necessary, in order to secure the higher part of the *vagina*, with which the bladder coheres, to begin the incision there; to make it with a bistory; and to keep the back of the bistory turned from that side. As to the opposite side of the *vagina*, which adheres to the *rectum*, it is necessary to avoid pushing the incision intirely to the end, in order not to reach even the coat of the *vagina*.

V. In extirpating the excrescences, care must be taken not to cut them too near, without being very sollicitous about a portion of the base, or pedicle, which may remain: because it disperses of itself, by the suppuration; or at all events, it is easy to consume it by slight *escarotics*.

VI. When there is occasion to separate the *parietes* of the *vagina*, which cohere in consequence of some *cicatrix*, it is proper to divide them in the very place where they do cohere. For it may be well judged, how great the mischief would be, if either of its sides were punctured; or even if it was made so thin, that it could not any longer bear, without dilaceration, the dilatation which it must undergo in delivery.

VII. It results from hence, that these operations, especially the two last, are extremely nice: that they demand time, care, and dexterity; and that the object is, with respect to them, to be less sollicitous about performing

forming them quickly, than about performing them well.

VIII. Finally, too much caution cannot be used, to prevent a new conglutination of the *parietes* of the *vagina*, at the time the wound begins to heal. This conglutination is scarcely to be apprehended in the simple incision of membranes: but it is very much so in the extirpation of excrescences; and yet more in the dissection of *cicatrices*. There are various means, however, by which it may be prevented. Some make use of a fine sponge, cut into a long piece, and dipt in the ointment of *diapalma*, or of tutty, melted with a sufficient quantity of oil of sweet almonds; and introduced into the *vagina*. Others employ a roller of linnen moderately hard, and of a size proportioned to the dilatation of the *vagina*, which is dipt in the same unguents; and introduced in the same manner. There are, nevertheless, some who prefer the use of a roller of thin leaden plate, perforated with many holes, spread over with the same unguents, or plasters; and placed in the *vagina*, after the same manner. These means are all good: because they are all proper, to hinder the coats, or ulcerated *parietes*, from cohering during the cicatrization. It is necessary to repeat these applications, only once every day; and to keep them in their place, by the help of a proper bandage; or, what is more safe, to make the patients keep their bed, till the cure be completed; in order the better to retain in its place, what has been introduced into the *vagina*.

C H A P. VI.

Of difficult, and laborious menses.

§. I. DIFFERENCES.

IN a state of health, the *menses* should come, continue, and go away, without any accident; or, at least, without any such as is momentous. It is, therefore, really a disease, to have difficult, and laborious *menses*; that is to say, such as have the eruption preceded, or attended, with symptoms so bad, as to demand the help of medicines.

These symptoms are commonly, pains in the loins, thighs, or hips; tumefactions in the *vulva*, *vagina*, or haemorrhoidal vessels; tension, and acute pains, or throws of colic, in the *uterus*; disorders of the appetite, and digestion; shiverings, and *rigors*, over all the body: as also convulsive accidents; and sometimes even complete attacks of the hysterical passion.

It may well be conceived, nevertheless, that the *menses*, which are laborious, are not always equally so; nor in the same manner; in all the women, who are subject to them. They vary, indeed, even in the same subject.

I. Sometimes they terminate in a natural, and regular discharge: sometimes in a flooding: and sometimes in an imperfect discharge; such as is either not sufficiently long, or not sufficiently copious.

II. Sometimes the pains, and the labour, begin before the eruption of the *menses*; and cease as soon as the discharge takes place. Sometimes they continue during the discharge, but cease when it is finished. and sometimes, also, they last after the discharge is over; and do not go away till sometime after, and by degrees.

III. In some women, the laborious *menses* are followed by the *fluor albus* for some time; and, in others,

they cease, without leaving any consequence, more than in perfect health.

§. II. CAUSES.

The tumefaction, and tension of the *uterus*, in the laborious *menses*; and the pain which the patients feel in that part; prove two facts. The one, that the blood-vessels of the *uterus* are full of blood to a very great degree: the other, that the blood, which fills these vessels, has a difficulty in being discharged into the cavity of the *uterus*, through the venous *appendices*; and, consequently, is always discharged too late; and sometimes even only in an imperfect manner.

The first fact is according to the order of nature. The vermicular vessels of the *uterus* must be filled with the milky lymph in the period of one month; when they are full, they must compress the neighbouring veins: and they must also, by compressing them, obstruct there the blood; and give rise to that local *plethora*, necessary to provoke the *menses*.

It is not the same with relation to the second fact. On the contrary, the natural mechanism of the *menses* requires, that the blood accumulated in the vessels, is discharged into the cavity of the *uterus*; and with a certain facility. The order of nature is, therefore, disturbed, when this discharge is made with difficulty; and when it is made too late, or only imperfectly: and it is this disorder, which, by causing a too great, or too long *plethora* in the *uterus*, renders the *menses* difficult, and laborious.

There is consequently nothing wanting, but to determine the causes, which may prevent the blood accumulated in the vessels of the *uterus* from being discharged through the extremities of the venous *appendices* in the time of the *menses*, and with the due facility. But it is evident, that these causes may be reduced to three general classes. I. To the faultiness of the *appendices*, by which the discharge should be made; that refuse too long a time, to open themselves;

selves ; or do not open sufficiently to let out the blood as is requisite, when it may be supposed, the blood was, as to itself, ready to flow. II. To the faultiness of the blood, which should be discharged, but is not in a state to be so, either so readily, or so copiously, as it ought, when the *appendices* open as commonly. III. To the concurrence, both of the faultiness of the veinous *appendices*, whose opening is neither sufficiently ready, nor sufficiently great ; and of that of the blood, which is neither discharged with sufficient quickness, nor copiousness.

I. The veinous *appendices* refuse too long to open, or only open imperfectly, from different causes.

1°. Because they are too dense, close, and elastic ; which is often the case in young girls ; and, indeed, in those, also, who are older, and have never yet had the *menses* regularly.

2°. Because the internal coat of the *uterus*, which surrounds the extremities of the veinous *appendices*, is too nervous, thick, and compact, which is often found in the same case.

3°. Because there are in the *uterus* obstructions, tubercles, and *schirrusses*, which compress the *appendices*, and hinder them from being able to dilate ; in order to their opening, as quickly, and as much, as is requisite.

4°. Because the *uterus* is in a state of *erethismus*, or convulsive contraction ; which closes the veinous *appendices* ; and does not permit them to open ; or, at most, only imperfectly. This last cause, although more transitory, is not less real.

II. The blood accumulated in the veinous *appendices* is discharged too slowly, and in too little quantity, from three causes.

1°. Because it is too thick ; which occasions, that it can scarcely pass out through the openings of the *appendices* ; supposing even that these openings be of the common magnitude.

2°. Because it is propelled too weakly, and too slowly, by the contractions of the heart, and the beatings

beatings of the arteries ; which occasions, that only a small quantity can flow, in an equal space of time, through the same openings.

3. Because it is, at the same time, too thick, and too weakly propelled ; which must diminish in a double ratio, the quantity, that may flow in an equal space of time.

III. Finally, on one hand, the venous *appendices* open too late, and too little ; and, on the other, the blood flows in too small quantity, and too slowly, from the concurrence of the different causes ; which have been particularly explained ; and this concurrence is more frequent than is imagined ; as has been mentioned in *Chapter IV.*

Reference must be made to the same chapter, for the particulars of the causes, which have been explained : because these causes are common to the suppression, and the laborious *menses* ; which differ only in the degree of the effect.

§. III. DIFFERENCES.

I. As there is no suppression, the blood, which is accumulated in the vessels of the *uterus*, in the laborious *menses*, must attain at last, although with difficulty, to dilate, and open the venous *appendices*. But it may dilate and open them, in three manners : in the degree which the order of nature demands ; in a greater, or such in which the dilatation becomes sometimes a laceration ; or in a much less.

In the *first* case, the labour of the *menses* ends at last in a natural discharge ; especially if no faultiness be supposed in the consistence of the blood.

In the *second*, a greater or less flooding will succeed : and this happens commonly in women, with whom the vessels of the *uterus* have had time to become varicous, in consequence of being exposed to frequent repletions.

Lastly, in the *third*, the discharge, which happens, will be less than it should be, either with respect to duration, copiousness, or both ; especially,

cially, if the blood be too thick, or propelled too weakly.

II. Every time a natural discharge, or a flooding; that is to say, in the two first cases, which have been explained; happens in the laborious *menses*, the labour of the *menses* must cease, as soon as the discharge takes place: because then the vessels empty themselves. But it only diminishes, without entirely ceasing, when the discharge is imperfect: because then the repletion continues yet, although diminished. It even sometimes happens, the discharge is so insconsiderable, that the *plethora* subsists still after it is ceased: and in this case, the symptoms persevere also; at least the greatest part of them; and do not entirely vanish, but by degrees, in proportion as the blood resumes the ordinary course of circulation.

III. In the laborious *menses*, either the lactiferous vessels of the *uterus* open, and empty themselves during the discharge; or they open and empty themselves after; or they neither open nor empty themselves before, nor after; in such manner, that the milky humour is obliged to stagnate there; or to find a passage into the lymphatic vessels of the *uterus*.

In the *first* case, the laborious *menses* are neither followed by any *fluor albus*; because the milky humour is discharged at the same time, as the blood; nor with any remains of tension in the *uterus*; because all the vessels, as well those of the milk, as blood, are emptied.

In the *second* case, the *fluor albus* succeeds the laborious *menses*; and lasts till the lactiferous vessels are empty; which may be sometimes longer, and sometimes shorter: but no more tumefaction, nor pain of the *uterus* will subsist; because the lactiferous vessels which are empty, do not constrain the course of the circulation of the blood.

Lastly, in the *third* case, there is no *fluor albus* after the laborious *menses*; since the lactiferous vessels do not empty themselves: but the tension of the *uterus* will subsist a long time; and not cease wholly, till the lactiferous vessels be intirely emptied by a kind of

of resolution ; which is made by means of their lymphatic vessels ; and is always considerably slow.

§. IV. SYMPTOMS.

I. The accidents, that happen in the laborious *menses*, depend always on one of these three causes.

The *first* is, the repletion of the vessels of the *uterus*, which is communicated, from one to another, to the neighbouring parts, where the blood is carried by lateral branches, passing out of the same trunk ; as to the broad and round ligament ; the parts contained in the *pelvis* ; the muscles which are around the *vagina*, *vulva*, and extremity of the *rectum* ; &c. From thence arise the pain and tension of the *uterus* ; the pains of the loins, thighs, and hips ; the tumefaction of the *vagina*, *vulva*, hæmorrhoidal veins, &c.

The *second* is the regurgitation of the milky lymph, which, by flowing back into the blood, mixes with the *saliva*, and the *leven* of the stomach ; depraving their purity ; and diminishing their power : which gives rise to want of appetite and disgust ; the *pica*, and *malacia* ; bad digestion ; nauseas ; vomitings ; loosenesses ; &c. As this cause can only have place, when the milky humour is not discharged, it is, therefore, in that case only, the symptoms, of which we have been speaking, can be found to happen.

Lastly, the *third* is, the sensation of pain, that is produced in the *uterus*, and, that in consequence of sympathetic motions, the mechanism of which will be explained hereafter, brings on all the accidents of the hysterical passion in particular ; and causes sometimes complete attacks of it, even such as are violent.

II. In general, young girls, who begin to have the *menses*, are more subject to have them laboriously, than those who have had them for some time. Because it is scarcely in any, but young girls, that the smallness and density of the veinous *appendices*, as well as the thickness and hardness of the internal coat of the *uterus*, are found.

III. In general, girls, even those who have had the *menses* a long time, are more subject to have them laboriously, than women. Because, in girls, the texture of the *uterus* is more dense, close, and compact, than in women.

IV. Lastly, the women, who have never borne children, are in general more subject to have laborious *menses*, than those who have had several. Because, in the women who have had no children, the vessels of the *uterus* are less supple, dilated, and disposed to dilatation, than in those, who have been several times delivered.

§. V. DIAGNOSTIC.

I. The complaints of the patient afford information of the nature, number, and violence of the accidents, which precede, or accompany the *menses*; and suffice to evince, that they are laborious.

II. It is from the patients, also, that must be learnt, whether the labour of the *menses* leads to a natural discharge, a flooding, or an imperfect discharge: whether it cease as soon as the discharge takes place, or still continue: whether the *menses* are followed by the *fluor albus*, or not: and, lastly, whether there remains, or not, in the *uterus*, any sensation of pain, or tension, in the cases where no *fluor albus* appears: and hence the patients themselves furnish the means of judging what is the kind of laborious *menses* with which they are troubled.

III. Two different causes of the laborious *menses* are known, and distinguished,

1°. By inspection of the cloths used by the women. If the blood can scarcely penetrate the linnen, it is a proof, that the difficulty of the *menses* comes from the thickness of the blood. On the contrary, there is reason to judge, that it arises only from the faultiness of the venous appendices, when it is imbibed by the cloths: and a proof is thence afforded, that the blood is not of an undue consistence.

2°. By

2°. By a knowledge of the habit of the patient. When the pulse is weak, low, and beating at great distances ; and the patient low spirited, and heavy ; the disorder should be ascribed to the thickning of the blood. On the contrary, it must, for the most part, be attributed to the faultiness of the veinous *appendices*, when the pulse is strong, frequent, and quick ; and the patient cheerful, and active.

3°. By the nature and quality of the discharge. The cause of the disorder cannot be imputed to the thickness of the blood, when the discharge is sufficiently quick, and copious : and it would be irrational not to impute it to this cause, when the discharge is much less than it ought to be, either with respect to duration, or quantity.

§. VI. PROGNOSTIC.

I. The laborious *menses* are less dangerous than the supprest ; but they are never without some danger. Experience shews, that this danger varies in several manners.

1°. According to the accidents, which precede, or attend them. As they threaten more in proportion as the accidents are more numerous, violent, and bad.

2°. According to the age of the patients. As they are more easy to be cured in young girls than in those who are older ; because there is room to hope the vessels of the *uterus* may extend themselves gradually in young girls, in proportion as the *menses* take place ; which can scarcely be expected in women, who are older.

3°. According to the state of the patients. As the laborious *menses* are of a worse nature in married women than in maids ; and in women, who have had children, than in those, who have not : because they suppose, in the *uterus*, or in the blood, a faultiness, that is greater, more remote from the natural state, and more difficult to be corrected.

4°. Accord-

4°. According to the nature of causes. As the laborious *menses*, which are occasioned by the faultiness of the vessels of the *uterus*, are more obstinate than those which arise from the faultiness of the blood: because it is more difficult to find a remedy for the faultiness of the *uterus*, than for that of the blood. Wherefore the most obstinate of all are, those laborious *menses*, which depend on both the faultiness of the vessels of the *uterus*, and the blood.

5°. According to the long continuance of the disorder. As the longer time there has been, that the *menses* have remained laborious, and the more difficult it is to find an efficacious remedy for them: because the length of the time strengthens the causes which produced them.

II. In general, the laborious *menses*, where the discharge is constantly imperfect, terminate almost always in an absolute suppression; and are attended consequently with all the dangers of a suppression.

III. The laborious *menses*, which are followed with a flooding, degenerate often into such as are excessive: and a proper estimation of danger should be made on that account.

IV. The laborious *menses*, which terminate in a *fluor albus*, often change into a discharge of this kind: and upon that account a due rate should be also made of the danger.

V. The laborious *menses*, where there is no *fluor albus*, but where the tension and tumefaction of the *uterus* are continual, or at least last a long time, give room to dread a *scirrus*, or an inflammation in the *uterus*; which would have consequences more dangerous even than the preceding.

VI. The laborious *menses*, which are followed with a natural discharge, where the pain and tension of the *uterus* cease as soon as it takes place; and where there is no *fluor albus*; are generally the least dangerous, the most supportable, and the easiest to be cured.

§. VII. *Method of cure.*

The intentions of cure, which should be proposed in the treatment of the laborious *menses*, are the same as those which ought to be effected in the suppression of the *menses*; and are confined in the same manner; 1°. To correct the faultiness of the veinous *appendices*, by rendering them more supple, soft, and *extensible*; and thence more easy to be dilated, and to open: 2°. To augmenting the effort of the blood on the *appendices*, by augmenting its motion, and fluidity: 3°. To provoking the free eruption of the *menses*, by exciting, in the body of the *uterus*, gentle contractions, or moderate concussions, capable of pressing the *appendices*, and forcing them to open.

The same remedies should, therefore, be employed in the treatment of the laborious *menses*, which have been above proposed for the suppression of the *menses*; and in the same manner. It must only be remembred, that they should be employed with more care; and their effects less urged; because the disease, being less dangerous, as well as less troublesome, there is more time allowed to repeat these remedies; and to adequate the power of them to the degree of resistance they have to overcome.

P R E C A U T I O N S.

The same precautions must be observed in the treatment of the laborious *menses*, as in the suppression of the *menses*: on which head, *Chapter IV.* may be consulted. It is only necessary to add,

I. That, as the laborious *menses* may terminate in three different manners, and lead to three different diseases; it is very important to foresee, early, the course the disorder must take; in order to find a remedy, before hand, for the consequences there is reason to apprehend.

II. That, if it be judged, by the diminution, which happens at every return, of the quantity, and duration of the *menses*, that the disorder must change
into

into a total suppression; the use of the emmenagogues, which are proper in suppressions, must, in this case, be persisted in more effectually, and more constantly.

III. That, if the increase of the discharge, which succeeds to the labour of the *menses*, at each return, gives reason to foresee, the disorder will turn, at last, into an actual flooding; it is proper, in this case, to moderate the power of the emmenagogues; or even to employ, early, remedies which are proper in the excessive *menses*; to such as will be proposed below, in *Chapter IX*; or, at least, to join them with the emmenagogue remedies, that are continued to be employed.

IV. That, if the laborious *menses* be followed with a discharge of the *fluor albus*; and this discharge goes on increasing, so as to give room to apprehend, the disorder will take, in the end, that turn; it is necessary, in this case, to make use of remedies serviceable against the *fluor albus*; on which may be consulted *Chapter X*; or, at least, to mix some of the remedies of this kind with the emmenagogues, of which the use is continued.

V. That, if the want of success affords reason to judge, the laborious *menses* are kept up by some local faultiness in the *uterus*, that cannot be removed; or, at least, without exposing the patients to a greater danger; prudence exacts, in such case, that the treatment should be then confined to the simple palliative cure: which consists only in diminishing the violence of the accidents; and preventing the consequences which they may have; till nature may be habituated gradually to dispense with the want of this evacuation.

VI. The same attention must be given, whenever the accidents of the *menses* are bad, or urgent; even when there is room to hope the being able to make an effectual cure: because, in waiting for this radical cure, the palliative must not be neglected; in cases where the nature of the accidents evince the necessity of it.

VII. The proper remedies must, therefore, be employed in both these cases; 1°. To diminish the *plethora*

thoræ of the vessels of the *uterus*: 2°. To derive, by other ways, a part of the milky lymph, with which the vermicular vessels of the *uterus* are surcharged: 3°. To lessen the sensibility of the *uterus*; and alleviate the painful sensations, which the repletion of the vessels causes there.

Such are, 1°. Diet, to which the patient must be subjected, in order that they make less chyle; and that the chyle, which they may make, may be more thin, and more fit to be taken up again by the lymphatic veins of the *uterus*. It is proper, in the same view, to make the patients use much exercise, if they can bear it; which will tend, at the same time, to restore the due course of the *menses*, which come with difficulty; and to diminish the accidents, which they bring on by this difficulty.

2°. Bleeding, repeated from time to time; in order to diminish the quantity of blood, which surcharges the vessels; but always in the arm, to derive the blood from the vessels of the *uterus*.

3°. Purging, frequently repeated, to evacuate a part of the humours, and prevent a *plethora*: but always with purges, that are moderate, and incapable of bringing on any *erebismus* in the *uterus*.

4°. Glysters, that are emollient, anodyne, purgative, or antihysteric, according to the particular indications, or the different views which may occur; either of relaxing the *uterus*; emptying the bowels; or mitigating some accident of the hysterical passion.

5°. Broths, or apozeins, that are dilating, aperitive, diuretic, &c; in order to render the milky lymph more fluid; and more fit to pass from the vermicular vessels of the *uterus*, into the lymphatic veins, which spring from it: or in order to evacuate a part by urine; nearly in the same manner, as a part of the milk is evacuated in the same way, in childbed women.

6°. Lastly, narcotics, joined with antihysterics; and given seasonably in the height of the colic, which precedes, or attends the laborious *menses*; with a view to quiet; or, at least, to lessen the pain of the *uterus*; and

and prevent the attacks of the hysterick passion, which
the pain may bring on.

C H A P. VII.

Of the deviating menses.

§. I. DIFFERENCES.

WHEN the *menses* are too late in their first eruption in adult girls; suppress for a long time; retained by some fault of conformation; slow; laborious; difficult; sparing; or, in short, when they do not flow, or only in small quantity, and with trouble; it sometimes happens, that the blood retained, and accumulated in the vessels, opens, at last, a passage in some other part; by which it escapes; or, to speak more properly, *deviates*.

The *menses* most commonly deviate, by the nose, the lungs, the stomach, and the hæmorrhoidal veins; which brings on a bleeding at the nose, a spitting, or vomiting of blood, or an hæmorrhoidal flux. But there is, indeed, scarcely any part of the body, by which the *menses* may not open themselves a passage; and by which, in reality, they do not frequently: as is proved in an almost infinite number of accounts, which are found collected in authors.

Sometimes, this extraordinary discharge of the *menses* is as copious, and regular, as the natural. But it is generally less copious, or less regular; and, most frequently, both less copious, and less regular, at the same time. It is, sometimes, not followed with any bad accident, especially, if it be made by the nose, or the hæmorrhoidal veins: and, sometimes, it is accompanied, or followed, by such as are terrible, when it is made by the lungs, or the stomach.

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Sometimes, the eruption of the deviating *menses* is without pain, tension, or tumefaction in the *uterus*; or, in short, without any thing, in that part, which shews a disposition towards the *menses*. At others, it is foreshewn by the tension, tumefaction, and pain of the *uterus*, and by other symptoms which precede the natural discharge of them: and sometimes, also, it is preceded, and attended, not only by a disposition towards the *menses*, but even by some discharge through the ordinary ways; but too weak to merit the name of *menses*; or to produce the advantages of them.

§. II. CAUSES.

So long as the *menses* fail, only because the blood fails in the body, whatever may be the cause of such failure, there is never any reason to fear the *menses* may deviate. The vessels, in this case, far from being full, and in danger of rupturing, are not sufficiently so. But the *menses* are subject to deviate, when the contrary cause prevails, to that, to which the failure, or considerable diminution of them, is owing. As, then, there is accumulated, in the body, every month, a certain quantity of blood, greater or less, which should be discharged. This quantity, several times superadded to the accumulated store, must produce, in the end, a *plethora*, capable of forcing some partial extremities of the capillary vessels; and dilaterating them.

It is, therefore, this *plethora*, which is the cause, solely, of the deviating *menses*. But as this cause is a general one, which acts of itself equally every where, it is necessary, in order to give rise to the deviating *menses*, in one part, rather than another, that it should be determined there by some local cause, or disposition; which augments the effect, particularly in that part; and among such local causes, the following are those, which are the most common, and the best established by observations.

I. The proximity of the part, by which the *menses* deviate, to the *uterus*; and the communication by the same

same vessels; which occasions the repletions, that happen in the *uterus*, to extend themselves commonly to this part. From whence it results, that the *menses*, which cannot longer be discharged by the vessels of the *uterus*, deviate so often by the hæmorrhoidal veins; and sometimes, even by the veins of the lips of the *vulva*.

II. The delicacy of the substance of the part, by which the *menses* escape; and the thinness of the vessels, which are distributed there; whence their coats yield more easily to the repletion, which is made in the part. It is for this reason, the *menses* deviate so frequently by the vessels of the nose; or by those of the lungs; and cause thence periodical bleedings of the nose; or spittings of blood.

III. The faultiness of conformatio[n] in some part; which occasions that the blood-vessels are there more thin; or the circulation less free than they ought to be. In which case, the *menses* must deviate by this part, rather than by any other, in consequence solely of this latent, and sometimes unknown, faultiness, without any exterior cause, or particular accident, which determines them there.

IV. Some wound, exulceration, or scratch, in any part, which, by opening, in that quarter, a passage to the blood, that is replete in the vessels, suffices to bring on there the discharge of the *menses*; which cannot be made by the ordinary ways. This is the reason, why it happens the *menses* deviate; sometimes by places in the skin; in which it is divided by some scab, cut, or galling, often very slight.

V. Some blow, or contusion in any part; which, by lacerating some capillary vessels; or bringing there some tumefaction, which constrains the course of the blood; may, in several cases, determine the supprest *menses* to take that rout. It is thence, that, without any exterior division, the *menses* deviate sometimes by places, which have been exposed to some blow, or bruise, that has not been thought worthy of notice.

VI. Concussions, contractions, and distensions, that happen to any parts, by diseases, or fortuitous accidents; and which, in consequence of compressing, pressing, elongating, and doubling back the vessels, already too full, tear them at last; and open, by that means, a way for the evacuation of the *menses*. It is hence, they are often determined to deviate by the nose, in consequence of a cold in the head, which occasions sneezing; by the lungs, in consequence of a cold in the breast, which occasions coughing; by the stomach, in consequence of indigestion, that occasions a vomiting; and by the hæmorrhoidal vessels, in consequence of a looseness, or a *tenesmus*, that causes too great, and too frequent efforts.

It follows from hence, that the deviation of the *menses* depends always on two causes: the one general, which is the *plethora*, occasioned by the suppression of the *menses*: the other partial, which is some of the local causes, or dispositions before mentioned. When these two kinds of causes concur with a sufficient degree of force, it is always to be feared, that the *menses* may deviate, by the part which suffers most: but this accident is never to be dreaded, except when both these kinds of causes concur; and in a degree sufficiently great.

Moreover, in establishing here, that the discharge of the deviating *menses* comes from a *plethora* alone, without any particular conformation in the part, in which it is made, nothing is contrary to what is said above, in *Chapter II*, of the necessity there is, to admit a particular conformation in the *uterus*, to explain the periodical discharge of the common *menses*: because there are evident differences betwixt these two kinds of discharges.

1°. The deviating *menses* never happen, but in consequence of a *plethora*; and even of a considerable one. But this *plethora* suffices to force the vessels without the aid of any particular conformation. Nothing is more usual, on the contrary, than to see the common *menses* return regularly, without any *plethora*;

and recourse must in this be necessarily had to a particular conformation, which supplies the place of the *plethora* that is wanting.

2°. The deviating *menses* are seldom ever exactly regular, either as to the time, or duration of the returns; or as to the progress, or diminution of the discharge. It is not, therefore, strange, that a *plethora* alone should produce them. Their regularity agrees perfectly with the nature of such a cause; which is, of itself, always unequal, and variable. But the common *menses* are more periodical in their returns, equal in their duration, and uniform in their manner of beginning, increasing, and diminishing: and it is absurd, therefore, to attribute to a *plethora*, only, a discharge so regular. Nor can the admitting, in order to explain it, the particular conformation in the *uterus* which has been spoken of, be dispensed with: and the more, as it has been confirmed elsewhere, by anatomical observations.

3°. Lastly, the deviating *menses* lead, almost always, to the exulceration of the parts, where they deviate: which proves, that they happen only by the dilaceration of the vessels, which the *plethora* bursts. On the contrary, the common *menses* never bring on exulcerations in the *uterus*: which affords a certain proof, that the vessels are not then, either torn, or forced; but open naturally, by a mechanism, that is the consequence of the particular conformation, which they have in the *uterus*.

§. III. SYMPTOMS.

I. When the *menses* are suppressed, without occasioning any repletion of blood in the vessels of the *uterus*; which is Case I. of the suppression of the *menses*; they must then deviate without any tension, tumefaction, or pain of the *uterus*; or, in short, without any thing appearing, that foretells the approach of the *menses*.

II. But if it happen, that the vessels of the *uterus* fill, and are replete with blood; which is the II^d and III^d

III^d Case of the suppression ; then the eruption of the deviating *menses* will be always foretold, by the painful tension of the *uterus* ; and by the other common symptoms of menstruation.

III. Lastly, if the blood not only fill the vessels of the *uterus*, but have, also, sufficient force to dilate, and open them to a certain point, although short of the necessary degree ; which is the case of the labo- rious *menses* ; the eruption of the deviating *menses* will be then preceded, and attended, with some discharge by the ordinary way ; but such as is too weak, to be capable of preventing the deviation.

IV. By whatever manner, the *menses* deviate, the eruption of them will be always preceded by symptoms, which happen in suppressions : but of which, the nature varies, according to the different kinds of causes, that produce the suppression.

V. As these different symptoms, which attend the suppression of the *menses*, that precede the deviation, depend only on the *plethora*, it is evident, they will cease, so soon as the eruption is made in any part ; or, at least, that they will diminish, in proportion to the copiousness of this eruption : because it is evident, that the *plethora*, which causes them, will be diminished by it in the same proportion.

VI. It is true, that, properly speaking, these symptoms belong to suppress *menses*, rather than to deviating *menses* : because there are others, that are proper to deviating *menses* ; which arise from the particular repletion, that precedes the eruption ; and of which the nature varies, according to the places, by which this eruption is made.

VII. Thus, if it be by the nose, the patients, as long as the eruption lasts, are subject to tumefactions, redness, and heat of the nose ; a stoppage of the nostrils, with all the consequences of it.

VIII. If it be by the lungs, the patients find their breath opprest ; cannot keep laid down without great trouble ; cough almost continually ; have a heat, and dryness in the *thorax* ; and often complain of a par-

ticular place that is painful, in the fore-part of the breast, one of the sides, or behind, betwixt the shoulders.

IX. If it be by the hæmorrhoidal veins, the patients find great trouble in sitting, or walking; feel an irritation, heat, and acute pain, in the fundament; are often attacked with a teasing *tremor*; and cannot make the proper efforts for it, and much less, actually go to stool, without suffering greatly.

X. If it be by the stomach, the patients fall into a disgust for food, and sometimes into qualms, and headache; are thirsty; feel a burning heat in the stomach; have frequent *nauseas*; vomit fluid, or coagulated blood; and void a black substance, resembling pitch, which is only blood half digested, or, to speak more properly, half putrified.

XI. It is easy to imagine the other accidents, which must come on when the eruption of the deviating *menses* is made by other parts; as soon as it is known, what are the functions, to which these parts are appropriated; and the effects which may be produced there by the tension, and the tumefaction of the vessels that are replete; or of the acrimony, and heat of the blood, which is discharged by them, when they are burst.

XII. In general, by whatever part the eruption is made, it happens, 1°. That it is sometimes moderate, when there are only a few vessels which burst, and are torn; or those which are torn, are only capillary vessels; and that it is, sometimes, on the contrary, so abundant, as to degenerate into a kind of flooding, when there are a very great number of vessels open; especially, when among them, there are some considerably large: 2°. That it is, sometimes, of short duration, when the lacerations of the vessels are small; the *plethora* moderate, and soon exhausted; and the lymph sweet, viscid, and proper to repair quickly the ruptures of the vessels; &c: 3°. And, that it lasts, on the contrary, sometimes for a long space, when the lacerations are large; the *plethora* abundant;

abundant; and the lymph acrid, saline, and not proper to consolidate the lacerated vessels.

§. IV. DIAGNOSTIC.

I. It may be foreseen, with certainty enough, that the *menses* will deviate by some part of the body, when they have been suppress'd for several months, in a girl, or young woman, who is full of blood, eats much, uses little exercise, and is in the following circumstances; and yet more, if she be in several of them at the same time.

1°. If she have, naturally, any weak part, by which the blood has been usually evacuated.

2°. If she have, in any part; or in some place of the skin; any wound; cut; or old, and fistulous, ulcer.

3°. If it happen to her to have any part, naturally formed in a very weak manner; and often exposed to any concussion, contraction, or extraordinary effort.

4°. Lastly, if she feel constantly, in the parts that are ill dispos'd, any heat, or irritation; and observe there any redness, or tumefaction, supposing the parts are within the reach of the eye.

II. When the eruption of the deviating *menses* is once made; and appears to be renewed periodically, at the time noted for the return of the *menses*; the nature of the disorder cannot be then mistaken; and nothing is more easy, than to judge of the place, the kind, the degree, and the violence of this eruption, as well as of all the other signs, that may serve to characterise it.

§. V. PROGNOSTIC.

I. The deviating *menses* seem, at first, to relieve, and indeed even do relieve the patient: because they diminish the greatest part of the accidents of the suppression of the *menses*, which cause them; and, in this respect, the deviating *menses* are less inconvenient than the suppress't *menses*.

II. But they are attended, nevertheless, with the same danger, as the suppress *menses*, with relation to the cause, which produced them: because this cause is absolutely the same.

III. Generally such cause is even more difficult to be removed in the deviating *menses*, than in the suppress: because, in the deviating *menses*, the aid of the *plethora*, as in the suppress *menses*, is wanting to force the obstacles which prevent the eruption of blood, by the ordinary way; that is to say, by the vessels of the *uterus*.

IV. For the most part, the cause of the suppression of the *menses* is never more difficult to be removed, in the deviating *menses*, than when the patients do not feel, in the *uterus*, any periodical tension, tumefaction, or pain; because then no effort is made in that quarter, which may force the obstacles that are there.

V. But besides this danger, which arises principally, only, from the suppression of the *menses*, or from its cause, the deviating *menses* are attended with others, that are peculiar to them, result from the effect they have on the parts, by which they deviate; and must be differently estimated, according to the difference of the places.

1°. According to the delicacy, or importance of these parts. Thus the *menses*, which deviate by the stomach, or lungs, are more dangerous than those, which deviate by the vessels of the nose, or by the haemorrhoidal veins: and these are more so, in their turn, than those by which the eruption is made in the pores of the skin, where there is a solution of continuity, by some wound, or ulcer.

2°. According to the degree of repletion, which precedes the eruption. Thus, every thing being equal, the deviating *menses*, of which the eruption is made, without repletion, heat, pain, or even inflammation in the part affected, are always less dangerous, than those, of which the eruption is made, with these accidents.

3°. Accord-

3°. According to the duration of the disorder; and even according to the duration of each return. Thus the *menses*, which have deviated for a long time, and of which the discharge lasts a long time at each eruption, are always more dangerous, than those which have deviated a short time; and of which the eruptions are short.

4°. According to the constitution, and habit of the patient. Thus the deviating *menses* are always less dangerous, all other things being equal, in the patients of a good constitution, whose blood is sweet, and the *viscera* in a good state, &c. than in those who are cacochymic; whose blood is acrid, and saline; or in whom there are obstructions of the *viscera*.

5°. Lastly, according to the nature of the change, which the deviating *menses* make in the part, where the eruption happens. Thus, there is always less danger in them, when the eruption ceases perfectly, and without any consequence, or that it is succeeded by a running, purely lymphatic, than when it ends in a bloody running; or more especially, a purulent one.

§. VI. Method of cure.

In the curative treatment of the deviating *menses*, the effecting four intentions is to be considered. The first is to remove the cause, which occasions the deviation, or conduces to its continuance: the second, to prevent, as much as possible, or at least to diminish, the eruption of them, while more efficacious remedies are sought for: the third, to correct the acrimony of the blood; mitigate the effects, they may have on the parts where they happen; and prevent their bringing on any dangerous exulceration: and the fourth, to moderate the copiousness of this eruption, in case it become excessive; and degenerates into an haemorrhage.

I. The first intention can only be effected, by restoring the natural course of the *menses*: and to this end, it is proper to employ the remedies which have

been proposed in *Chapter IV*, for the suppression of the *menses*. But it is necessary, to take care, in using them, to employ only aperitives, dissolvents, and moderate attenuants; particularly, if the eruption be made by any important part; as the lungs, or the stomach; for fear, that by too much attenuating the blood, and accelerating its motion, floodings may be brought on, that are excessive, and difficult to be cured; or, perhaps, even fatal.

If the disorder happen to a virgin, the most certain way of remedying it, is to get her married, if it be convenient; and the state of her health, on the whole, admit of it. Nothing can be more effectual, for bringing back the *menses* to their natural course, without changing the quality of the blood, or accelerating too much its circulation; and, consequently, nothing can be more efficacious, and more salutary in the deviating *menses*.

II. The second intention is effected by the use of frequent bleeding, which by diminishing the *plethora*, diminishes, in proportion, the effect the blood would otherwise exert on the part, by which it is accustomed to escape. It is very true, that, by bleeding the patients so often, the action of the blood is diminished in proportion on the vessels of the *uterus*; and, consequently, the advantage that might be expected from that effort, in bringing back the *menses*. But as experience has already taught, that the blood makes a much greater effort on the part, by which the *menses* deviate, than on the *uterus*, there is always more to be gained than lost for the patient, in diminishing the *plethora* by frequent bleedings.

All that can be done to recall the blood on the side of the *uterus*; and to assist it in opening again the natural passages there, is to bleed, in such cases, in the foot; and it is constantly practised, not only when the eruption is made by the superior parts, but even when by the stomach, and the hæmorrhoidal vessels: at least, unless when the small appearance of restoring the natural course of the *menses*; and the imminent danger

danger of attracting the blood to the weak part, do not dictate the contrary practice: which sometimes happens in the concurrence of the two conditions before proposed: especially, when in a person very plethoric; with whom prudence requires, that some bleedings in the arm should be begun with.

As the *pletthora*, which is the only cause, that produces the deviating *menses*, is not the only cause that occasions their return; it being certain, the acrid, and saline quality of the blood contributes much to it, on account of its hindering the perfect reunion of the vessels, which have been once torn and burst; it is necessary to endeavour to sweeten the blood, in order to prevent, effectually, the returns of the eruption, by rendering more perfect the consolidation of the vessels, which have opened; and this leads to the third intention, of which we are going to speak.

III. This third intention, in which it is proposed to correct the acrimony of the blood, is of so much more importance in the treatment of this disease, as the principal danger in the deviating *menses*, arises only from the exulceration, which they bring on in the part, by which they deviate; and as this exulceration cannot be prevented, but by sweetning the acrimony of the blood, to hinder it from exceeding the parts by which it escapes.

In this view, it is necessary, to suspend frequently the use of emmenagogues, which have been proposed to fulfill the first intention. But it is proper, also, to substitute for them, from time to time, humectant, diluent, and sweetning remedies; as,

1°. Chicken, or veal broth, with the roots of comfrey, yellow mallows, water lily, harts tongue, turnips, &c; and the leaves of borage, bugloss, lettuce, chickweed *, &c; to which may be even added, in urgent cases, frogs skinned and gutted; or land tortoises.

* *Alfalfa.*

2°. Baths,

2°. Baths, or half baths, of warm river water; in which may be boiled, if it be thought proper, some emollient plants ; or linseed.

3°. Whey, simply chalybeated, and prepared into an infusion of bitter plants ; as chervil, fumitory, centory, germander, &c ; or medicated with some spoonfuls of the depurated juice of the same plants.

4°. Mineral chalybeate waters ; such as Forges, Camarets, Spa, Caransac ; &c ; provided the breast be not attacked.

5°. Afs's or goat's milk, drunk with proper precautions, once or twice a day, after having chalybeated it, by extinguishing in it a red-hot piece of iron ; and added two or three ounces of the weaker lime water.

6°. Mollifying remedies, suited to the particular part where the *menses* deviate ; as pectorals, or oily and mucilaginous stomachics, if it be by the lungs or stomach ; anodyne and deterging lotions, and injections, if it be by the hæmorrhoids ; sternutatory fluids of like quantity, and nearly of the kind, if it be by the nose ; and the same with regard to the other parts.

IV. Finally, the fourth intention only comes in question, when the eruption of the deviating *menses* becomes so great, that it merits the name of flooding, and that it require the help of medicines to moderate, or stop it. In this case, it is necessary to employ the remedies, which are proper for the excessive *menses*, and which will be proposed below, in Chapter IX.

C H A P. VIII.

Of the green-sickness, or chlorosis.

§. I. DESCRIPTION.

YOUNG girls, who have never had the *menses*; or who have only had them late, with trouble, and in small quantity; or girls of a more advanced age; and women, whose *menses* are retarded, diminished, supprest, retained, or difficult and laborious by disease, and without being the effect of that age, at which they are lost; as also women with child, in the three or four first months of their pregnancy; fall commonly into a state of languor, more easily to be described, than defined.

They lose their taste for common victuals, at which they have almost a horror; and have, in the place of it, a depraved appetite for odd things, known under the name of ¹ *pica* and ² *malacia*. The digestion is ill performed, and with trouble, attended with a load at the stomach, and heartburn; and often followed with convulsive motions and murmurings of the bowels; with vomitings and *diarrhœas*; and with tension in the *hypochondria*. Some of these patients feel, by intervals, pains more or less acute in the loins, groins, or hypogastric region.

¹ Hanc appellationem affectio ipsa adepta est ob picæ animalis varietatem, aut quod etiam illa sepe hac affectione corripitur. *Paulus Ægineta, De Re Medicâ. Lib. i. cap. I.*

Affectio quædam prægnantiæ bus accedit, quæ à picâ aviculâ nomen accepit. Alii tamen ab hederæ similitudine, quæ κιτλας Græcis vocatur, hanc affectionem κιτλαν, hoc est, picam appellatam esse sentiunt; nam sicut illa variis plantis, prout occurunt,

se implicare solet, ita mulieres ex picâ laborantes varia edulia appetunt, atque ea contraria, quæ tûm voluptatem, tûm insuavitatem gustanti exhibit. *Aëtius, Med. Contract. Tetrab. 4. Serm. 4. cap. 10.*

² Pliny, who wrote in Latin, calls this depraved taste in one place *gravidarum malaciam*. Hist. Nat. *Lib. xxiii. cap. 6.* and in another place, *malaciam stomachi*. Hist. Nat. *Lib. xxviii. cap. 7.*

The pulse is generally quick, frequent, and almost feverish; but low: the respiration short, difficult, and laborious. The difficulty of breathing increases, even to oppression, and the motion of the heart becomes strong, and hurried even to palpitation, on the patients using the least exercise, especially if they go up stairs, or are forced to walk a little faster than common. The beatings of the carotid and temporal arteries are then extremely visible; and *paroxysms* of the headache, which is almost constant, come on.

The patients have an involuntary propensity to sleep, from which it is difficult to recall them; an extreme indolence which retains them in the same place; a continual weariness with which they feel themselves overpowered, even without doing any thing; and a profound melancholy, which renders them inattentive to every thing, and makes them shun all company.

The feet, and even the legs, tumefy, and are puffed in the evening, but go down again in the night; when the swelling is removed to the head, and more particularly the eyelids, and the whole of the eyes, round which there is a livid circle.

Moreover, the colour of the face fades; and the freshness of the skin goes off. The patients become pale, of a leaden hue, with a colour like wax or tallow, and sometimes even of a yellow brown, or of a yellow, verging towards green or black.

Such is the green-sickness: or, to employ a term of art established by use, such is the *chlorosis*. As this disease is common at this time in Europe, and indeed very much so in the southern parts of it, there is reason to believe it could not be formerly rare in Greece and Italy. Nevertheless it is only slightly touched on by ¹ Hippocrates, ² Galen, and ³ other antient physicians: who regarding it only as a simple symptom of suppression, or retardation of the

¹ Lib. de Morbis Virginum. *Medicā*, Lib. i. cap. 1. Aëtius,

² De causis symptom. *Lib. i.* *Contractū Medicin.* *Tetrab.* iii. *Serm. i. cap. 23.* Et *Tetrab. iv. cap. 7.*

³ Paulus Ægineta, *De Re Serm. 4. cap. 10.*

menses, seem not to have condescended, to give it a particular name. For it is an error to believe, that Hippocrates ¹ called it *chlorosis*: this word not being even found in any of his works ². It is scarcely more than two hundred years, since physicians have begun to reckon it as a particular species of disease, among those of women. The diversity of names, which they have given it, prove sufficiently, there was none appropriated to it in their time. Some called it the disease of young girls, *morbus virginicus*; because, as we have mentioned, it happens often to young girls at the first eruption of their *menses*: others, the white fever, or the pale fever, *febris alba*, or *febris pallida*, on account of the quickness of the pulse; which, in this disease, is almost as great as in a flow fever; and from the paleness of the face, that is essential to it: others, the amorous fever, *febris amatoria*; because this kind of fever happens to girls at the time they first begin to have sentiments of love: or because, as they pretend, the girls, that are attacked with it, are generally of an amorous constitution: but, at last, it seems a fixed matter, at least in France, to call it only by the name of *pales couleurs* (AND IN ENGLAND, GREEN-SICKNESS) *pallidi* or *fædi colores*; because, the paleness of the face is the most common; or, even if you will, the most essential symptom of it. It is, for the same reason, that almost all the modern physicians, who have written in Latin, speak of it under the name of ³ *chlorosis*; which is derived

¹ This error is found in Varandé, *Libro i. de Morb. Mulierum*, cap. 1. in Sennert, *De Morb. Mulier. Part. ii. Sect. 3. cap. 2.* in Riviere, *Praxeos Medic. Lib. xv. cap. i.*

² John Languis was the first who wrote with any exactness on this disease, in the year 1550. See his *Epistol. Medic. Lib. i. Epistol. 21.*

³ The word *χλώρωσις*, a green colour, is formed on the model of the words *μεταμόρφωσις*, *trans-*

ductio animæ, and *μεταμόρφωσις*, *transformatio*; but because the formation of this word *χλώρωσις* was irregular, as that of the two others, it was necessary that there should be in Greek a verb, *χλώρω*, *ω*, *viridem reddo*, from whence *χλώρωσις* might come, as there were in Greek the verbs, *μετεμψύχω*, *ω*, *animam traduco*, and *μεταμόρφω*, *ω*, *transformatio*; from whence they might have formed *μετεμψύχωσις* and *μεταμόρφωσις*.

from

from the Greek, and signifies a disease where the face is pale, inclining to green. But it is a new word absolutely unknown to antient authors; and it has not even been formed according to the exact rules of the analogy of the Greek language.

§. II. CAUSES.

A little reflection on the conformation of the skin, and the distribution of the vessels which supply it with blood, will make it easily comprehended, that the hue and freshness of the skin depend on three causes: 1°. On the fineness, and transparency of the cuticle, and of the body of the *corpus reticulare*; 2°. On the number and the smallness of the capillary vessels, which are distributed on the surface of the skin: 3°. And on the quantity of blood, and the brightness of the red colour of it.

Thus, by the reverse of these reasons, the loss of the hue, or the paleness of the face, may come from several opposite causes, 1°. From that the *epidermis* is thick, callous, opaque, as when sun-burnt or changed, or in all other cases where the *epidermis* is thickned or parched: 2°. From that the *corpus reticulare*, which is below it, is tinged with some strange colour, which diminishes the transparency of it; as in the different kinds of jaundice: 3°. From that one part of the capillary vessels of the skin are destroyed; as in old age: 4°. From that the blood fails to fill the vessels, as in faintings, wastings, haemorrhages, long diseases, &c: 5°. And, finally, from that the blood, which fills them, is scarcely red at all, or much less so than it ought to be.

It is evident, that none of the four first causes can have place in women, and yet less in young girls; except those who have a *chlorosis*, in consequence of the suppression, or the retardation, of the *menses*. There can be no thickning, nor opacity of the *epidermis*; no faulty tinge in the *corpus reticulatum*; no change in the number and thinnes of the vessels of the skin; nor any diminution in the quantity of the blood. The paleness,

palleness, which happens at that time, can only be deduced from the last of these causes which have been mentioned; that is to say, from that the blood is not so red as it usually is: which occasions, every thing else remaining the same, that it does not now communicate to the skin the same brightness or hue.

In order to judge of the causes, which may thus alter the natural colour of the blood, it is requisite to examine all the parts which constitute it; to discover what they are, which gives it the red colour; and to determine afterwards, what are the particular faults by which these parts may be depraved. But let us see, what that *analysis* of the blood, which is the most simple and easy, and consequently the most faithful and certain, shews us on this head.

1°. The blood received, in a vessel, from the veins, separates at first of itself, on becoming cold, into two parts: the one of which grows thick, and forms a red *coagulum*, considerably firm in its consistence: the other, which remains fluid, is a kind of yellowish *serum*, that surrounds, and floats upon the *coagulum*.

2°. If the *coagulum* be cut into slices, when it is thoroughly cold; and these slices are washed in water, a little warm; the red colour is immediately separated from them; and they become clear and transparent, as a jelly: and the red colour, which the water has taken away, precipitates presently to the bottom, under the form of a dark red powder.

3°. Moreover, if the yellowish *serum* be exposed to a degree of heat, capable of hardening an egg, one part will concrete in form of the white of eggs; and the other preserving its fluidity, becomes a little more yellow, and saltish; and, consequently, intirely like to urine.

This *analysis* proves, that only four kinds of substances, must be admitted to be in the blood.

1°. A *gelatinous gross substance*, or *thick lymph*; which grows stiff; and concretes by the cold alone.

2°. A *red substance*; which remains commixt with the gelatinous substance in the *coagulum*, that it forms in
concreting

concreting by cold ; but which, warm water again separates from it. 3°. Another, more fine, *gelatinous substance* ; or a *thin lymph* ; which grows hard only by the heat of the fire, carried to a certain degree. 4°. Lastly, an *urinous* and *saline* fluid, which seems to be the vehicle of the three other substances of the blood ; or, at least, of the two first.

As, of these four substances, there is only the second, that is red ; the three others, being transparent, or slightly tinged with yellow ; it is to the second alone, must be attributed the red colour with which the blood appears to be strongly impregnated. It might be presumed on this account, that the quantity of the red substance must be very considerable, to have the power of communicating, to the whole mass of blood, so uniform and lively a red colour. But authentic accounts, which may be seen in the *Acta Eruditorum Lipsiensia* of the year 1682, for the month of April ; and which are easily verified ; show, that this red substance makes only the tenth or twelfth part of the whole mass of blood, in the natural state : and perhaps even not so much, if it be accurately estimated.

What has been here advanced, is confirmed by the discoveries of Leuvenhoeck. This observator has, by the help of microscopes, distinguished the two different substances in the blood : the one colourless and transparent, which makes the greatest part : and the other red, dispersed in specks, that float in the colourless transparent part. These specks, well observed, are so many small globules : which, notwithstanding their smallness, are each composed of six other smaller globules. It is easy to conceive, that it is these, which give the red colour to the blood : that the white or transparent fluid, in which they swim, contains the three other substances, found in the blood by the preceding *analysis* : and that, in proportion to this fluid, the quantity of the red globules is very small ; but sufficient, nevertheless, to give an uniform red colour to the whole mass, which constitutes the blood.

It results, therefore, as well from the *analysis* that has been described, as from Leuvenhoeck's observations, that the colour of the blood must be red; and of a more lively hue, in proportion as it contains more globules: as those globules are more equally dispersed, more separated, and consequently, if I may use the expression, more multiplied; and, let us add, as they have a more quick rotation; as the parts of which they are formed whirl more rapidly; and, lastly, as their surface is more perfectly modified, in a manner proper to produce the red colour. From whence may be inferred, by the reverse of these reasons, that the blood will be less red; or, what comes to the same, that it will be more pale; in proportion as it contains more globules; and as those it does contain are less divided, and less agitated; as they rotate more slowly; as the parts which compose them whirl more weakly; or as the surface of the globules may be less perfectly modified, in the manner proper to excite the sensation of red.

It is requisite, that some of these five causes, or perhaps several of them, should take place in the *chlorosis*; where, as we have already shewn, the blood is less red than it should be. It may not be so proper however to insert the three last, which are less known; and perhaps less certain: but we should rest satisfied with examining the two first, which are real. But in order to judge of these two causes; and to distinguish what may diminish the number of red globules in the blood; or decrease the motion that agitates, and separates them; we must go yet farther; and shew in what manner these globules are formed.

The food, which is the first matter of the blood, is dissolved and digested in the stomach, by the action of the *saliva* and of the *stomachal* lymph, with which it is impregnated, aided by the motion of the stomach: and it is there converted at last to a thick mass of a grey colour, and inclining to be sour, or at least easily growing so, known under the name of *chymus*.

This mass being carried into the smaller intestines, and mixt with the bile and the pancreatic juice, undergoes again there a fresh alteration ; which brings it to a right state for furnishing the lacteal veins with the chyle ; that is to say, a fluid more fine, sweet, white, and milky. This chyle is again rendered more perfect in the *pancreas* of Asellius, the *receptaculum* of Pecquet, and the thoraci duct, by the admixture of lymph ; which makes it more liquid and sweet : and it is, at length, in this state, and after having undergone all these preparatory changes, incorporated, in the left subclavian vein, with the blood ; of which, it gradually acquires the nature and properties.

There is distinguished, even in the chyle taken from the lacteal veins, and viewed with a microscope, some globules resembling much to those in the blood ; but larger, less spherical, and uniform ; and of which the surface must be differently modified, as they are white, and those of the blood red. In proportion as the chyle grows perfect, and assimilates, these globules become more in number, less in magnitude, and more spherical : but they do not approach yet to those of the blood, either in quantity, smallness, or roundness. They never acquire these qualities, but by mixing perfectly with the blood : and it is only by acquiring them that they become red, or absolutely the same with those of the blood : which effects the change of chyle into blood ; or sanguification.

This theory shews, that the number and the smallness of the globules of blood, depend on three causes. On the state of the chyle alone, of which they are formed ; on the state of the blood which must form them ; and on the state both of the chyle and the blood ; that is to say, both of the matter of the globules, and the efficient cause.

1°. If digestion be well performed in the stomach ; and the chyle be perfect in all its qualities ; there will be more globules in it : and such as are in it will be more

more small and round: and, consequently, every thing else being the same with respect to the blood, there will be formed, from this chyle, more red globules, and such as are smaller and rounder; and, therefore, of a more lively red. If, on the contrary, the chyle be of a bad quality, through the fault of digestion, there will be fewer globules formed; and those will be larger, less round, and less red.

2°. If the blood circulate with its common velocity; be triturated as it ought to be, by the contraction of the heart, and the arteries; and have, in itself, the fermentative motion that is natural; every thing else being supposed equal with relation to the chyle; the chylous globules will, on one hand, be more attenuated, and divided; and consequently more numerous; and, on the other, they will be more triturated, and, made more round; and consequently more red. On the contrary, they will remain larger, less numerous, and be made more round; if the blood be, in the circumstances, intirely opposite.

3°. If the chyle be of good quality, and the blood itself be in the state it ought to be; the globules will be so much the better broken; more numerous; of a greater soundness, and more red, by the concurrence of these two causes. But consequently, from the reverse of these reasons, they would be in the same proportion, as much less broken, numerous, round, and red, if the chyle and the blood were both at the same time of equal bad quality.

There are several causes, which may either alter the quality of the chyle, or decrease the motion of the blood; or, what is worse, alter the quality of the chyle, and decrease the motion of the blood, both at the same time: and it is not extraordinary, therefore, that the paleness of the face, which depends on the defect of the globules in the blood, should be a common symptom in so many diseases. We shall nor-

undertake to investigate these causes in the whole extent of them; as no paleness is in question here, but that which comes from the retardation, suppression, or retention of the *menses*. For this is the only one, that is known under the name of *chlorosis*, or the green-sickness; and to the causes, which produce it in such cases, we shall, therefore, limit our inquiry. But the question reduced to this state is easily resolved.

1°. On one hand, it has been shewn above, *Chapter III*, that the retardation of the eruption of the *menses* in young girls, depraves the power of the digestive ferments, and spoils digestion: that the same thing happens, when the *menses* are suppressed, or diminished, *Chapter IV*; and when they are retained, *Chapter V*. Paleness must, therefore, result, in these three different cases, from the faultiness of the chyle, which is furnished to the blood; even if there was no other cause.

2°. On the other side, it has been shewn, *Chapter III*; that, in the retardation of the eruption of the *menses*, the blood circulates more slowly, and is less triturated by the heart and the arteries, in consequence of the *plethora*, which this retardation causes; and that the same thing happens, likewise, when they are suppressed, or diminished, *Chapter IV*; or when they are obstructed, and retained, *Chapter V*. The paleness must, therefore, be owing in these different cases only to the faultiness of the blood with which the chyle is mixt, when there is no other cause but that.

3°. In the three cases however of retardation, suppression, and retention of the *menses*, the faultiness of the chyle always concurs, as has been shewn, with those of the blood. The paleness must, therefore, happen in these three cases, from the concurrence of these two conjoint causes: and, in a degree, consequently, as much more great; as it must always be in a compound *ratio* of the two causes which then concur.

It is evident, therefore, that, in these three cases, the skin of all the body, and particularly that of the face,

face, which is the finest and most transparent, will have scarcely any other colour, than that of the three other substances of **the blood**, which then predominate; that is to say, of the two kinds of lymph and serum. But these substances are, from their nature, of a white, inclining to grey, ash colour, or light yellow. The colour of the skin, and particularly that of the face, will be, therefore, a whitish grey, ash colour, lead colour, or yellow.

But it is very usual for these humours, instead of being pure, to be charged with a certain quantity of bile, more or less great, according as the liver is more or less obstructed; in such cases they must communicate to the face a yellow colour; of which the hues may vary from that of olive, even to a deep yellow.

Lastly, it sometimes happens, that the bile, which stagnates in the blood, is of a green, and leek colour; and then the substances of the blood, which will be infected with it, must communicate to the face, a colour inclining to green, or sometimes even so deep a green, as to appear livid or black.

§. III. SYMPTOMS.

There are few functions, but what are disordered in the *chlorosis*: especially where it is of long continuance. To establish some method, therefore, in the speaking particularly of so great a number of symptoms, it is necessary to follow the enumeration, that has been made in the description of the disease, Art. I; and to begin, by explaining those which happen in the functions of the *abdomen*, *thorax*, and head; and go on, afterwards, to those which relate to the exterior parts of the body.

1°. The milky humour, intended to be evacuated by the *menses* every month, is not evacuated in the *chlorosis*. It must, consequently, by being retained in the blood, mix at length with the lymph of the stomach, and the *saliva*; and alter the quality of them: which must make such a change in their action on the stomach, and the tongue, that the

common flood will either affect the organs, but weakly, so as to be insipid; or affect them disagreeably, so as to be disgusting: and from thence arises the want of appetite, and the disgust to food, that attend this disorder.

2°. The changes, which the faults of the *saliva*, and the lymph of the stomach, produce in the impressions made on the tongue and the stomach, may be such; that the patients will have not only a distaste for common food, but even an inclination for eating coals, cinders, plaster, chalk, and salt: or, for drinking vinegar, &c. Because these substances stimulate the tongue more strongly; or correct the faultiness of the *saliva*, and the lymph of the stomach, &c; and it is from this, the taste for odd things, known under the names of *pica* and *malacia*, is produced.

3°. This odd taste varies in different patients. For some love one thing, and others another; which arises either from the particular character of the faultiness communicated to the *saliva*, and the lymph of the stomach; or from the different degree, to which this faultiness attains; supposing it to be the same. These variations may, also, come from the habit the patients have gradually contracted; or from the example other girls give them; and indeed they do often come from these causes.

4°. As the *saliva*, and the leaven of the stomach, are vivified in the *chlorosis*, and less powerful than in their natural state, their faultiness alone would suffice, to render the digestion difficult, even though the diet were good in other respects. But on the contrary, it is certain the diet is then very bad; since the patients refuse all wholesome food; and eat many things, that cannot be digested, or but ill, and with difficulty. It is no matter of wonder, therefore, if the concurrence of these two causes renders the digestion slow, difficult, laborious, and imperfect, in this disease.

5°. The mixt mass, which will be the product of such a digestion, must, as long as it is detained in the stomach,

stomach, irritate its coats, and even its superior orifice; and excite pains in the stomach, heartburn, vomitings, hiccups, &c; and as soon as it passes into the intestines, it must cause in them creepings, murmurings, colics, *diarrhaeas*, &c.

6°. The thickning of the blood, which precedes the *chlorosis*; the retention of the milky humour, that accompanies it; and the bad digestion that follows; must soon give rise to the inspissation of the different secretions; which must bring on obstructions, in the *viscera*, particularly in those which are designed to separate tumours naturally thick; as the liver, *pancreas*, spleen, the glands of the mesentery, &c.

7°. The tension of the *hypochondria*, which happens in the *chlorosis*, depends on several causes.

1°. On the tumefaction of the stomach, full of indigested food, or wind. 2°. On the tumefaction of the *colon*, by wind retained in the folds, which it makes in bending back towards the *hypochondria*. 3°. On the tumefaction of the liver, or spleen, which are obstructed. 4°. On the sympathetic contraction of the *Maphragm*, occasioned by the pain of the stomach, &c.

8°. As the state of the *uterus* is not the same in all these diseases, so neither are the accidents, which happen from them. Some feel, every month, pains and throws of the colic in a very lively manner. Because, in such patients, every thing is prepared, each month, for menstruation: as the vernicular vessels are filled with the milky humour; compress the veins; obstruct the blood in them; and, therefore, put the body of the *uterus* in a state of tension, and *phlogosis*, more or less painful, but always equally fruitless; because the orifices of the venous *appendices* refuse to open. These pains are seated in the middle of the hypogastric region, or extend towards the kidneys, the groins, the thighs, &c. according to the place, where the tumefaction, caused by the disposition of the *menses*, is seated in the *uterus*. But, on the contrary, there are other patients, who have nei-

ther tension, nor pain in the *uterus*: because there is not any strong disposition to menstruation; and therefore the circulation of blood is performed in the body of the *uterus*, with the common freedom and ease.

9°. On one hand, in the *chlorosis*, the quantity of blood is increased every day, by the suppression, diminution, or retardation of the *menstrues*; and consequently the vessels, especially those of the soft parts, such as the lungs, must be intirely full. On the other hand, in the *chlorosis*, the blood is thick and glutinous; and becomes so more and more; because it is formed of a chyle, that is always depraved; and, therefore, the blood must stagnate in the vessels, especially those of the lungs; and tumefy them. These two reasons occasion, that the *vesiculae* of the lungs, being too much compressed by the vessels which surround them, cannot dilate without difficulty, and therefore do but dilate in a small degree; which renders respiration difficult, laborious, and short.

10°. A necessary consequence of this state is, that the blood can never be wholly pressed out from the substance of the lungs: because the *vesiculae* are not sufficiently dilated. The blood, therefore, which remains there, and which continues to surcharge them, must excite, every instant, a new inspiration: which occasions, in these patients, that the respiration becomes more frequent, and more hurried, in proportion as it is more difficult, and short.

11°. As the blood is more strongly comprest, by the muscles, when they are thrown into contraction; and being thus expressed, passes more abundantly into the soft parts, such as the lungs; it is evident, that, in these patients, when they use any exercise, the lungs will be more surcharged with blood: which renders respiration still more difficult, laborious, short, and hurried. This is particularly observable, when the patients attempt to walk a little faster than usual; because, then, the contractions of the muscles are more quick and frequent: or when they are obliged to ascend

cend up some eminence; because the muscles must then make greater, and more vigorous contractions.

12°. As the blood, in the *chlorosis*, does not pass without trouble and difficulty, from the left *ventricle*, into the *aorta*; and from the right *ventricle*, into the pulmonary artery, on account of the repletion of the vessels of the body, and particularly of those of the lungs; it follows, that the ventricles can never be quite emptied: which occasions, that their contraction, being only partial, it must be small; and consequently more frequent, than in the natural state: and from thence it arises, that the pulse, which corresponds with the contractions of the heart, is also, in proportion, more small, and more frequent.

13°. It will be proved below, Article 2°, that the muscles can only contract weakly in the *chlorosis*. The heart, therefore, that is really a muscle, can, likewise, only contract itself weakly; which renders the pulse more weak than in the natural state; at least so long as the patients do not move.

14°. But as soon as the patients use any exercise, that is a little brisk, the pulse must become not only more frequent; because the blood, more strongly expressed from the muscular parts, flows more rapidly into the ventricles of the heart, and fills them more quickly; but also more strong, and more full; because the abundance of blood, by filling the ventricles more, irritates them to more strong, and greater contractions.

15°. The blood, in the *chlorosis*, must be determined more copiously, than usual, towards the vessels of the head; because of the obstacles, that the obstructions of the *abdomen*, and the *uterus*, oppose to its circulation in these parts: and thence comes the disorder of the head, that is constant in this disease.

16°. This disorder of the head increases continually, when the patients move; because, the circulation being then accelerated, by the contractions of the muscles, which beat forwards the blood, the brain is more furcharged with it.

17°. For

17°. For the same reason, the carotid and temporal arteries beat more sensibly than; because the blood, which is determined more copiously into the carotids, and their ramifications, produces greater, and stronger pulsations in them.

18°. In the *chlorosis*, there is only a small proportion of animal spirits separated in the brain: as well, because the blood contains only a small quantity, on account of its being thick: as, because it supplies with difficulty the small quantity it does contain, on account of the slowness with which it circulates. From whence it follows, that the fibres of the brain must want the due tension. The spirits, moreover, which are separated, are ferous: because the blood itself is so: whence the fibres of the brain must be too much mollified. These fibres being thus in the *chlorosis* constantly relaxed, and mollified; there must be, in this disease, a very great propensity to sleep: since it must be in a compound *ratio* of the relaxation, and mollification of the fibres.

19°. As in girls, who have the *chlorosis*, the fibres of the brain are always more lax, and soft than usual; even when they are most awake, they can never be moved but weakly, by the impression of objects. Whence it arises, that nothing affects these patients: that they are disgusted with every thing: that they seek to be alone: and that they are melancholy, inattentive, and, indeed, even stupid.

20°. The little interest, which these patients take in every thing, that affects other persons of their age, would be sufficient to render them indolent; but their indolence is greatly augmented, by the trouble that they have in moving: which depends on two causes. 1°. On the small quantity of spirits which flow through the nerves; and on the slowness they flow with; which occasions the muscles to be very weakly contracted. 2°. From the resistance, which the blood that stagnates in the muscles, opposes to the contraction of their fibres: which occasions, that this contraction is performed with difficulty, and even often with pain.

21°. In

21°. In the *chlorosis*, as the blood is scarcely more than pure lymph, it abounds in *serum*. As it is only, in a small degree, broken, and attenuated by the beating of the heart, and the arteries, the *serum* is, consequently, ill mixt with the thicker lymph: and for this reason, disposed to separate easily from it. As it stagnates in the extremities of the vessels, it consequently suffers the *serum*, it contains, to pass more copiously into the lymphatic veins. To conclude, as the *serum*, which has passed into the lymphatic veins, is only weakly pressed out again, on account of the relaxation of the parts, it consequently stagnates in them. From all these conjunct causes, it is easy to infer, that, in the *chlorosis*, all the parts must abound extremely with serous lymph, and consequently be in a disposition very near to a *leucopblegmacia*, or general tumefaction.

22°. During the day, and particularly towards the evening, this swelling shews itself in the feet, legs, and even, sometimes, thighs.
1°. Because the blood, which reascends difficultly from these parts in the day time, when an erect or sitting posture is maintained, leaves behind a greater quantity of serous lymph.
2°. Because the serous lymph that the blood leaves behind, stagnates there more obstinately from the difficulty, which it has itself to come back from thence.

23°. When the patients are laid down, during the night, this tumefaction of the inferior extremities is dispersed: because that then, in the horizontal situation in which the body is, these extremities are in the same level with the other parts; and the circulation of the blood and lymph is made there with the same facility. But then, the tumefaction renders itself sensible in the face, and particularly in the eyelids, and about the eyes; because that those parts are more lax, and have less elasticity than the others, and consequently press out the lymph more weakly.

24°. There is even ground to suspect, that this *ædema*, or tumefaction, extends to the brain, from the same reason, respecting its softness; and to this cause,

cause, ought to be attributed the extreme trouble the patients have in waking in the morning; the invincible propensity to sleep, which continues, as well when they are up, as while they keep lying; and the state of stupidity, and lowness of spirits, in which they are for some time after they rise; till the change of situation gives opportunity to the *ædema* of the brain to dissipate, at least, in part.

25°. It must not be forgotten, that there are in the *chlorosis* several symptoms, as want of appetite, vomiting, swelling of the belly, convulsive choakings, and perhaps, even in certain cases, the liking for odd things, which appear to be hysterical, and depend on the impressions that are made on the *uterus*, by the disposition to menstruation. But the entering into this detail has been avoided; because it was impossible to render it intelligible, before an explanation had been made of the causes of the hysterick passion; of which it is only proper to speak in the last Chapter of Book II.

§. IV. DIAGNOSTIC.

I. The diagnostic of the disease is easy. For as soon as a girl, or a woman, is found to become pale, and loses her colour, without any preceding disease; to fall into a discontented state, without any apparent cause; to have fancies, and a liking for odd things, &c; and that it is, moreover, known, that her *menses* are retarded, diminished, suppressed, or retained; it may be taken for granted, that she has the *chlorosis*: and the proofs which these signs afford, will confirm it every day, by new accidents, that come on in proportion, as the retardation, diminution, suppression, or retention, continue.

II. It seems not to be more difficult to distinguish the different causes of the disorder, which constitute the kinds. If the *chlorosis* happen in young girls, who have never had the *menses*, but who are of an age to have them, it is a retardation of their eruption, to which it must be attributed. If it happen to mar-

ried women, who have the due symptoms of being with child, the suppression of the *menses*, which is the consequence of their pregnancy, should be then charged with it. If it happen, moreover, to girls, who have already their *menses*, to women who are certain of not being with child, or to widows, it can only be imputed to a suppression, diminution, or retention of the *menses*, produced by the causes enumerated in Chapters IV and V; and proper lights may easily be obtained on these three articles, by interrogating the patient.

Unhappily, women have often so great an interest in telling falsities, that there is reason to mistrust their evidence. How many girls, and widows, who perceive themselves pregnant, far from confessing it, neglect nothing to make it be believed that the illness, and paleness which appear in their face, is occasioned only from that their *menses* have a difficulty in coming on, or are suppressed by disease. An implicit confidence must not be always given to what, even, those women say, who have no interest in concealing the truth. Are there not instances of some, even married women, who are really ignorant of their being with child: and who, concerned at finding themselves pale, and languishing, apply for medicines, in order to the recovery of their health? In all these cases, it is proper, that a discreet physician, who is attentive to his own honour, and that of his profession, recollect what has been said on this matter, in Chapter IV; and that he conform to the rules, which are laid down there; and which it would consequently be useless to repeat here.

III. With relation to the degree of the disease, there is no difficulty: the time which the disorder continues: the quality, and the number of the accidents, which attend it: the nature and the importance of the functions which are impaired: &c. serve as the means of judging of it: and it is of consequence to form a right judgment, not only on account of the prognostic that should be made of the case:

case: but, also, for deciding, with respect to the remedies that should be employed.

§. V. PROGNOSTIC.

I. The *chlorosis* is almost always a long and obstinate disease: because it is necessary, in order to cure it efficaciously, to procure the eruption of the *menses* in young girls, who have never had them: or to re-establish them in those girls, or women, who have had them. But it has been shewn, in *Chapter III* and *IV*, both are often very difficult.

II. For the most part, this disease is long, and obstinate in its cure; in proportion to the time it has before continued: because the duration of the disorder has given time to the obstacles which obstruct the due course of the *menses*, to gain strength; and occasioned the mass of blood to be more depraved.

III. In general, a happy event may be expected, when the *menses* begin to appear; even though they may not, at first, be either sufficiently copious, duly coloured, or regularly periodical: because there is room to hope, that, by continuing the same remedies, which have begun to bring them back, the success may be obtained of restoring them intirely.

IV. Nevertheless, as the disease is subject to frequent returns, it is not well to be forward in pronouncing the cure too soon: as it often happens, that the disorder begins again, when it is believed to be cured; either, because the obstacles, which retard, or suppress the *menses*, are not intirely removed: or, because they are easily renewed by the least inspissation, the blood contracts anew, from the fault of regimen; the vexation that may happen to the patient; or the cold of the season.

V. But however difficult of cure, the *chlorosis* may be, it has the advantage of being generally without danger; at least, while it is recent: because then, the mass of blood has not contracted very considerable viciations; the obstructions are not yet multiplied in the *viscera*; and there is reason to hope, that the ob-

stacles

stacles which obstruct the due course of the *menses*, being recent, will yield easily to remedies.

VI. The disorder is not without danger, from the reverse of these reasons, when it is of long standing. But, nevertheless, experience teaches, that even in this case, success has been had in curing it very happily: provided it be not attended with any bad symptom; and that the patients are conformable in the use of remedies, and the observation of a regimen: which does however not always happen.

VII. The danger is greater, whenever the desire of eating odd things is to such a degree, that the patients cannot abstain from them. In such case, *on one hand*, so strong a desire evinces, that the *saliva*, and the lymph of the stomach, are very much depraved, by the mixture of the uterine milk, that stagnates in the blood in too great quantity, which supposes an universal, or almost universal, obstruction of all the vessels of the *uterus*; and consequently, such as is difficult to be removed. *On the other hand*, the odd things, the patients cannot refrain from eating, supply continually a gross chyle; which, by augmenting daily the inspissation of the blood, augments in proportion the obstructions of the *uterus*, and even produces others in the greatest part of the rest of the *viscera*.

VIII. The danger becomes very great, and very momentous, when the *chlorosis* brings on considerable obstructions; or, what is still worse, schirrous tumours in the *uterus*, or in the other *viscera*; tubercles in the lungs, &c: or that it is attended with spittings or vomitings of blood, &c; *leucophlegmatia*, or universal tumefaction; dropsy of the *abdomen*, or of the *uterus*; obstinate intermittent, slow, or hectic, fevers, &c.

IX. Finally, when the girls have a long time had the *chlorosis*, they are either barren, or but little fitted to conceive successfully; to bear children to the time; or to have such as are healthful and vigorous; which must be attributed to the obstruction, that subsists in the *uterus*, and is detrimental to conception;

as will be shewn in *Chapter III*, where the diseases, that relate to these functions, will be treated of.

X. The *chlorosis*, which comes on in the beginning of pregnancy, must be an exception, on all accounts, from the common rule: as it is void of danger, and goes away of itself, without returning, towards the third or fourth month: because that then the *fetus*, which is become larger, and has need of more nourishment, consumes all the milky humour, and blood; which before made the repletion in the vessels.

§. VI. *Method of cure.*

There are three kinds of *chlorosis*: that which comes from pregnancy: that which happens in girls, in whom the first eruption of the *menses* is too slow, or laborious: and that which comes on in girls and women, in whom the *menses* are supprest, or considerably diminished.

I. The first kind requires no remedies: because it cures itself, as has been remarked, towards the third or fourth month of pregnancy. It would even be imprudent to attempt to cure it: because that would be endeavouring to bring back the *menses*; or, in other words, to procure infallibly a miscarriage; if there should be the ill fortune to succeed. The best way is to omit doing any thing, in a disorder, that should be regarded as a necessary symptom of pregnancy; and of which the consequences are never bad: or, at most, only the mitigation of it, by palliative remedies, should be attempted; if it become too troublesome.

In order to this, 1°. the patient must be exhorted to observe the best regimen, which the disgust they have to wholesome food will permit them. It is, nevertheless, proper to take care, not to constrain them too much, in their fancies; nor to persist too obstinately in refusing them, the odd things, they like to eat. It is sufficient to make a proper representation of the matter to them: and, after that, to give

give way to their inclination, when it is perceived, they have not the power to repress it themselves. Experience has taught, that, in reality, there is less to be feared from the indulgence given them, than from the refusal of letting them satisfy themselves.

2°. It is commonly sufficient, in this case, to help digestion, and to comfort the stomach, by the use of some proper stomachics; but such as are gentle, and taken moderately: with relation to which, the taste of the patients, and the caprice of their stomachs, must be consulted. The most used and approved are the extract of juniper; *confertio-hyacynthi*; *confertio-alkermes*; *theriaca*; opiate *Salomonis*; rhubarb in powder; bark in powder, or tincture; red coral; crabs-eyes; powder of oyster-shells; *elixir proprietatis*; *garus*; quintessence of wormwood; *l'eau des Carmes*, &c.

3°. It is important, at the same time, to keep the belly free by mollifying glysters; in case it be not so naturally: in order to empty the stomach, consequently, by emptying the other intestines. Besides, there would be sometimes reason to fear, that the ill digested *magma* of the odd things eaten by the pregnant women, might stop in the bowels; and, by drying there, form in such hard masses of excrement, as to render it necessary, in order to expel them, to make straining efforts capable of causing a miscarriage.

4°. These reasons may even sometimes render glysters insufficient; and make it necessary to employ, also, from time to time, gentle purgatives, to cleanse the stomach more efficaciously: such as rhubarb, manna, or the vegetable salt, either alone or mixt together; or the pulp of *caffia* in whey well clarified; or in an infusion of linseed.

5°. It may be judged, that there is no great foundation for alarm, in seeing the women with child vomit often, during the first months of pregnancy. On the contrary, this evacuation is almost always salutary: because it serves to cleanse the stomach

from the foulnesses, of which it is full. It must be allowed, that frequent vomits weaken, and even intercept a part of the nourishment of the child, and the mother; but it is better, they should receive less nourishment for some months, than be both overloaded with such as is bad.

6°. It is proper, nevertheless, to take care to moderate the vomitings, if they become too violent, or obstinate. In order to which, at a distance from the meals, after the stomach has been emptied by the vomiting, and washed by some glasses of ptisan, or some dishes of small tea, there may be given ten grains of *theriaca*, or a grain of the pills of hounds tongue, or of Starkey's, from three hours to three hours, till the heavings intirely cease.

7°. This method should be constantly perfued in the beginning of pregnancies, even the most laborious; and it should be waited for without impatience, that the accidents begin to diminish in the third month, and cease intirely in the fourth. For then, as the child is become stronger, and has need of more plentiful nourishment, the longings cease; the appetite returns; digestion is restored; and the face regains its former colour.

II. For the two other kinds of *chlorosis*, as it is the retardation, or the suppression of the *menses*, which cause them, there is no other way to remedy them efficaciously, than by procuring the eruption of the too slow *menses*; or restoring the course of those that are suppress'd. It appears from hence, that the method of cure of the *chlorosis* does not differ from that of the retarded, or suppressed *menses*; of which the *chlorosis* is only the symptom. Chapter IV. may therefore be consult'd for the treatment of this disease where will be found, displayed at large, all the methods of remedying the suppressions of the *menses*. And will then remain only to make choice among the remedies found there, of those which may be thought most proper for the particular cases, that may occur; and to proportion them to the age, strength, and constit-

tion of each particular patient ; but all the precautions recommended in this *Chapter, Article III,* should be well weighed, before any determination be made : because they are all of importance ; and do not less hold good, in the treatment of the *chlorosis*, than in that of the suppression of the *menses*.

But besides this method of cure, which may be called the *radical*, there is another, which tends only to diminish or prevent the progress of the disorder ; and should be regarded merely as *palliative*, though an explanation of it is necessary here. The first method of cure is not equally proper in all seasons ; and often, even in the temperate seasons which are most suitable to it, a success so quick and perfect as is requisite for the intire cure of the disease, does not always follow. In these cases, there is consequently a necessity to have recourse for mitigation, to the second kind of curative treatment ; which in fact does not differ absolutely and essentially from the first : but yet in such a degree, nevertheless, as to merit a particular explanation.

1°. It is proper to prescribe to the patients, a right manner of living ; to let them have no food, but such as affords good juices, and is easy of digestion : to deny them absolutely the odd things for which they have a liking ; and which contribute to keep up, and even increase the disease : and to be strict with respect to this article ; because it may be done without danger in the case of those, who are not with child : to habituate them to drink wine and water at their meals ; and even sometimes, after dinner, a little pure wine, either alone, or mixt with a small quantity of sugar ; and a little musk powder ; to force them to rise early in the morning ; and drag them out of bed, in spite of their reluctance, particularly in fine weather ; to hinder their abandoning themselves to melancholy ; and oblige them to see company, and give way to amusement : and to make them use some exercise, or walk in the morning, fast-walking ; slowly at first, but faster by degrees, in proportion as they become habituated to it.

2°. If it be observed, that the patients are either extremely short breathed ; subject to great palpitations of the heart ; or afflicted with a constant headache ; it is proper to bleed them from time to time, in small quantities ; particularly if the pulse be full ; and that it be in the spring, or the summer. These bleedings may be in the arm, when there is not any appearance of the *menses*. They may be, however, also in the foot in this case ; but it is indispensable to have them always there, whenever the *menses* appear, or seem disposed to do so.

3°. In order to avoid bleeding repeatedly too often, it is sufficient, in the cases just mentioned, to hold the feet in warm water for an hour or two ; care being taken to keep it of a proper degree of heat. This practice attracts the blood downwards ; and relieves the head, breast, and heart, almost half as much as a bleeding.

4°. If the patients have their feet swelled, there may be used, in the place of common water, a decoction of aromatic plants, as rosemary, thyme, sage, mother of thyme, marjoram, &c ; or there may be even added, a pint or two of wine ; or a glass of *aqua-vitæ*, which renders the remedy proper for two purposes ; to resolve the *œdema*, by the spirituous parts, and to relieve the head, and lungs, by attracting the blood downwards by the heat.

5°. Whatever precautions may be taken with respect to *regimen*, the errors the patients fall into, or the bad disposition of their stomach, always produce crudities and viscidities, that spoil digestion more and more, which must create a necessity of giving purge from time to time. If they be lean, dry, threatened with a slow fever, or consumption, such medicine only, should be employed, as are composed of the barb ; the vegetable salt ; *sal polychrest* ; manna *caffia* ; syrup of apples ; syrup of peach-flowers, &c. But if the patient be of a phlegmatic habit, threatened with œdematosum tumefaction of the extremities, use should be made of infusion of the follicles of senna, in which is dissolved an ounce, or ha-

an ounce of manna ; or *diagrydium*, the *pulvis Cornachinus*, aloes, jalap, turbith, &c. in powder, should be prescribed in the form of bolusses.

6°. To enforce the effect of the purgatives, frequent use should be made of stomachics ; which, by restoring a due digestion, render more laudable the chyle which must pass into the blood. An enumeration will be given here of the stomachics, the most approved on these occasions ; amongst which, a selection may be made of those that are thought most proper, according to each degree of the disorder, or the constitution of the patients.

AROMATICS.

Cinnamon ;	They may be used in powder, mixt with the viands, in small quantities : or prepared in medicinal wines, of which some spoonfuls may be given morning, and evening.
<i>Cassia lignea</i> , or white cinnamon ;	
Cloves ;	
Mace ;	
Nutmeg ;	
Cardamums ;	

Oriental Saffron ;

Oriental Saffron ;	It may be ordered in powder, in the dose of, from ten to twenty grains ; or a little pinch may be infused in two dishes of tea ; and taken fasting.
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SEEDS.

Coriander seed ;	They may be used in the form of decoction, ptisan, or tea.
Juniper berries ;	

ELECTARIES, AND CONFECTIONS.

Iberiaca ;	In the dose of, from twenty grains to half a dram, or two scruples, in the morning fasting, in a spoonful of wine.
Alkermes ;	
Confertio-hyacinthi ;	
Spirate Salomonis ;	
Extract of juniper ;	

**E L I X I R S , D I S T I L L E D W A T E R S , O R
S T O M A C H I C P R E P A R A T I O N S .**

<i>Elixir proprietatis</i>	In the dose of, from eight drops to fifteen, or twenty, in a spoonful of wine, fasting.
without acid ; Quintessence of worm-wood ; <i>Eau de Mélisse, ou des Carmes</i> ;	
Mint water ;	{ In the dose of one, or two spoonfuls.
<i>Elixir proprietatis</i> distilled, or garus ;	
Decoction of worm-wood ;	{ In the dose of a tea-spoonful, in double the quantity of water, or wine.
Wormwood wine ;	
Syrup of wormwood ; in the dose of one ounce.	{ In the dose of half a glass of three, or four ounces.

GUMS, OR RESINS.

Mastic ; Myrrh ; { In the dose of, from ten to fifteen grains, in powder, or in a bolus.

7°. To the use of stomachics should be joined, that of gentle aperitives; on which may be consulted *Chapter IV*; such being chosen, which are believed to be most efficacious. In general, iron, and steel furnish those, which are most commonly employed.

Filings of iron, or steel porphyrised; } In the dose of, from ten to eighteen, or twenty grains fasting, with a little of the *confectio-byacinthi*: or at dinner, with as much rhubarb.

Aperitiv

Aperitive saffron of Mars prepared with the dew of the month of May ; } In an opiate ; or, as the filings, in the dose of, from fifteen to twenty grains.

Saffron of Mars prepared with the simple heat of warm water ; and therefore called *Æthiops Martis* ; } In the dose of, from fifteen to twenty grains.

Martial soluble tartar ; } In a bolus, or dissolved in some ptisan, or some broth, in Riviere's salt of steel ; } the dose of, from eighteen to twenty grains.

Tincture of steel ; } In the dose of, from twenty to thirty drops, in broth, or in a glass of ptisan.

The ball of Mars ; } Dipt in aperitive broth, or in a glass of ptisan till they become black,

Chalybeated white wine ; that is to say, filings of steel, or the aperitive saffron of Mars infused in wine ; } In the dose of a glass of three or four ounces, in the morning fasting.

Chalybeated water, made by infusing, in water, saffron of Mars, old rusty iron, iron nails, or tacks ; } As a common drink mixt with wine,

8°. The stomachics may be conjoined with aperitives, and compounded, by combining them in proper doses in infusions, decoctions, apozems, powders, bolusses,

bolusses, opiates, &c. With relation to which may be consulted, what has been before said in *Chapter IV.* In this case, the drugs must be selected properly for the form of the medicine, that it is thought fit to prescribe.

9°. As the thermal waters, taken internally, unite all the advantages of purgatives, stomachics, and aperitives, they are very efficacious for the cure of the *chlorosis*; and they may be taken in the proper season; that is to say, the spring and autumn; and a considerable long course of them may be continued in moderate quantities, provided the bad state of the breast do not forbid the use of them. A preference may be given to those of Vichi, Plombieres, Balaruc, Bareges, Bagneres, &c.

The mineral chalybeate waters, that strike a black colour, on being mixt with the decoction of galls, are useful, also, for the cure of the *chlorosis*: at least by the parts of iron they contain. They may, therefore, be employed with success during summer; and be taken, for some days together, in a moderate quantity, provided care be taken to add, from time to time, a sufficient proportion of the *sal polychrest* of Seignette; or of *sal de duobus*; to hinder them from staying in the body. The waters of this kind, the most recommended, are those of Vals, Caransac, Spa, Bussan, and Forges. But it is of consequence to observe, that the use of these waters must be prohibited, not only when the *thorax* is in danger, in the same manner as the thermal waters: but, also, when there is a great tumefaction of the inferior extremities, which gives room to apprehend an *anasarca*, or *leucophlegmatia*.

10°. The remedy, which may be most commonly used, is the following powder: which effects, at the same time, all the principal intentions.

R. *Limatur Chalib. in aquâ præparat.*

Cinnam. pulverati, àa part. j.

Sacchari tenuissè triti, part. ij.

M. F. pulvis, cuius dosis à 3ʒ ad ʒl.

This powder may be given, morning and evening; and there may be taken after it, one or two dishes of a slight decoction of aperitive plants; or, even an aperitive broth. It may be, also, given immediately before dinner.

When the patients have a costiveness, this purgative powder may be given twice every week, adding some grains of rhubarb in powder; or of the *pulvis Cornachinus*. The rhubarb should be employed, when there is any ground of apprehension for the breast; but the *pulvis Cornachinus*, or any other hydragogue, should be preferred, when the *ædema* of the inferior extremities increases.

11°. If we might believe certain authors, they regarded formerly, as specifics, in this disease, 1°. The preserved roots of angelica, in the dose of half an ounce, or an ounce, in the morning fasting: or the decoction of an ounce and a half of the same root, unpreserved, in two cupfuls of water: which was taken in the morning fasting. 2°. The decoction of the roots of scorzonera, in a like quantity of water; and the same dose, taken in the same manner. 3°. Oriental bezoar in powder, in the dose of, from six to twelve or fifteen grains, diluted in some spoonfuls of the decoction of the root of angelica, or scorzonera. But these medicines fall far short of meriting the praises, that have been given them: and I have not found any proofs, that they have, in this respect, any virtues superior to those of the common remedies.

12°. As the worst accident of the *chlorosis* is a consumption, and that this is always foreshown by a pain in the breast, frequent coughings, either dry or moist; tabidness; *insomnia*; disposition to a slow fever in the night; nocturnal sweats; &c.; it is requisite to be attentive, to prevent it as soon as any of these signs of it appear. In this view, bleeding in small quantities must be used from time to time; purges of manna, or *cassia* in whey, must be administered; broth of chicken, lights, veal, frogs, snails, &c. should be taken; fine oatmeal

oatmeal boiled in water with a little cinnamon and sugar; or in yeal broth; should be given, morning and evening. There should be administered, also, in the evening, some slight narcotic; as the decoction of one or two heads of the white poppy; three or four drams of the syrup of *diacodium*; or four grains of the pills of hounds tongue. In order to moderate the cough, if it be troublesome, the patient should be put into a course of milk, distilled from the pectoral plants; whey clarified, in which the flowers of mullein have been infused; or goats or asses milk simply. Milk should be even given, as the whole food; provided the stomach can bear it. In the mean time, all the treatment of the *chlorosis* should be suspended; and when it is resumed, it should be with great care; softening the aperitives, that are employed, by the mixture of proper pectorals.

13°. A tumefaction almost general, or an *anasarca*, is another accident of the *chlorosis*, which is not much less common or bad. In order to prevent it; or, at all events, to cure it; it is proper to employ,
1°. Diuretic ptisans, with the decoction of China root, sarsaparilla, parsley root, *millepedes*, &c :
2°. Diuretic broths, with the roots of smallage, eryngo, and the leaves of chervil, watercresses, pimpernel, &c. 3°. Diuretic bolusses, with the powder of *millepedes*; the *sal mirabilis Glauberi*; *arcanium duplicatum*; &c; incorporated with, a little syrup of buckthorn; or a little Venice turpentine. Moreover, the danger of an *anasarca* does not create a necessity of discontinuing the remedies for the *chlorosis*: which, on the contrary, are themselves proper for an *anasarca*.

14°. The varying the remedies is known to be requisite in all long and difficult diseases: but this rule should be, particularly, applied to the treatment of the *chlorosis*, in which it seems the stomach is soon habituated to the action of the same remedies: and that it is proper to substitute new ones, often to reanimate it. Therefore, sometimes stomachics, sometimes

times aperitives, and sometimes both joined together, should be employed. It is proper, sometimes, to give them without purgatives; and sometimes to add such in a moderate dose; and it is expedient, on some occasions, to let the stomachics, and aperitives, be succeeded by diluents, humectants, and sweetners, when there is danger of the breast; and there should, in other cases, be substituted for them diuretics, and hydragogues; when the tumefaction of the extremities gains ground, and threatens a dropsy.

15°. Finally, marriage, when it is convenient, is an excellent remedy in this disease. It is a fact, that was known as early as the time of ¹ Hippocrates; and confirmed since by a great number of observations. But it is proper to intimate, that, in order to render the effect duly certain, it is necessary to observe, on this account, the same conduct, as was before recommended with relation to exercise and walking, N^o I. that is to say, it must, at first, be used moderately; and practised more frequently by degrees. It is not well, however, to be too hasty in reaping all the advantages, that can be expected from it, till the *uterus* has been gradually put in a condition to take advantage of the good effects, it may afford; that is to say, when it has been rendered susceptible of all the contractions, compressions, and systaltic oscillations, that the use of coition produces in it; which must restore the free circulation of the blood, and lymph, and the free secretion of the milky humour; and consequently re-establish all the mechanism of menstruation,

¹ *De Morbis Virginum.*

C H A P. IX.

Of excessive menses, and floodings.

§. I. DESCRIPTION.

AS the discharges of blood in women may be diminished, and even supprest, they may be, likewise, so abundant, as to weaken and exhaust the patient : and, in this case, they constitute a new kind of disease ; and such as is directly opposite to that, of which we have spoken in *Chapter IV.*

This disease bears two different characters. Sometimes the discharges, though excessive, keep still an appearance of regular periods ; and then the disease retains the name of *excessive menses*. Sometimes, on the contrary, the discharges do not follow any periodical order ; but err only in the copiousness, or in the duration ; and then the disease is known by the name of *floodings*. There are, therefore, two different kinds of this disease : which it is necessary, for the sake of order, to explain separately.

Of the excessive menses. The quantity of blood, which is evacuated by the *menses*, depends on three circumstances. On the period of the return of the *menses* ; the duration of the discharge of them ; and the quantity of blood, which is evacuated : from whence we have had reason to conclude in *Chapter IV.*, that the *menses* may be diminished, with relation to each of these three circumstances ; when the return is too rare ; the discharge too short ; and the quantity too little. We may, therefore, infer from it, in the same manner here, by the reverse of these reasons, that the *menses* may be excessive, with relation to each of the same circumstances ; when the returns are too frequent ; the discharges too long ; and the quantity too great. It remains only to show, in how many manners, the irregularity of these three circumstances may be combined.

I. These

I. These circumstances may be separately faulty, as to each singly. From whence it results, that the *menses* may be excessive, either because they return too often, endure too long, or flow too copiously : which constitutes the *first order* of excessive *menses*.

II. These circumstances may be faulty as to two at the same time ; and then the *menses* are excessive, because they return too often, and endure too long a time ; endure too long a time, and are too copious ; or are too copious, and return too often : which constitutes the *second order* of the excessive *menses*.

III. These circumstances may be faulty, as to all the three together ; that is to say, the *menses* may return too often, endure too long, and be at the same time too copious ; which constitutes the *third order* of excessive *menses*.

To avoid falling into a mistake in this point, it is necessary to remark, that as it is impossible to fix the just proportion of the *menses* in their natural state : because their return, duration, and quantity, vary in different subjects, according to the age, constitution, climate, manner of living, &c. It is impossible also to determine accurately in what case the *menses* should be regarded as excessive : because that, which constitutes in some women a state of disease, may constitute in others, a state purely natural. Wherefore, it is not proper to be forward in accounting the *menses* excessive, only because they are more frequent, more copious, or continue longer. It is necessary that, besides this, they should be attended, or followed by symptoms, which evince a state not natural ; such as disgusts, paleness, lowness of spirits, weakness, œdematosum tumefaction of the feet, a general decay, &c.

Of *floodings*. Floodings, to merit that name, must be very copious ; or last long if they be moderate. When the discharge is copious, the flooding bears the name of *haemorrhage* of the *uterus* : when it is moderate, but lasts a long time, it is called in Latin

Sillicidium,

*stillicidium*¹, or *ploratus uteri*; and may be called in English, moderate flooding, or dripping of blood from the *uterus*.

There is the less difficulty in deciding on floodings, than on the excessive *menses*: for, without any risk of being deceived, one may regard, as a flooding, and consequently as a real disease, every discharge of blood, which is very copious; however little time it may last; or which is long, however moderate may be the quantity.

Moreover, the floodings, which sometimes happen in women with child; and the *lochia*, which sometimes become excessive in childbed, and miscarriages; are, as they are properly esteemed, true floodings, comprehended, consequently, in the genus of the disease, we are now treating of: but as they occur in particular conjunctures, require particular remedies, and constitute special cases, it does not appear proper to speak of them here: and the particulars of them will be found in *Book III*: in which the *diseases which regard pregnancy, or its consequences*, will be treated of.

§. II. Causes of the excessive MENSES.

To explain the causes of the excessive *menses* is, to explain those of three diseases: for it must be inquired, 1^o. What makes the *menses* return too often: 2^o. What makes them continue too long: 3^o. What makes them flow too copiously: and each of these researches demands a particular detail.

I. Of the MENSES, which return too often. A little reflection on the mechanism of menstruation will make it be comprehended, that the *menses* must return

¹ There are authors, who take the *stillicidium uteri* for a diminution of the *menses*; but they are deceived. A continual discharge, which lasts for a long time, as the *stillicidium uteri*, must be con-

sidered as a flooding, however moderate it may be; and this is the notion which Aëtius gives us, who first spoke of it. *Tetra-bibl. i. Serm. 4. Cap. 63.*

often than is right, from three causes : 1°. From the faultiness of the lactiferous vessels of the *uterus* : which fill themselves with the milky juice too quickly, and consequently too often. 2°. From the faultiness of the veinous *appendices*, which elongate, and dilate themselves too easily ; and consequently too often, on account of the tumefaction of the lactiferous vessels. 3°. From the faultiness of the blood ; which makes too strong efforts on the veinous *appendices* ; and consequently forces them to open too often. These three different causes may either act separately, each in particular ; or concur two, and even three together, according as it happens, that the remote causes, on which they depend, and which are going to be enumerated, coincide together, or otherwise : which renders the period of the returns of the *menses* more or less short.

1°. The lactiferous vessels of the *uterus* are filled with milky juice too soon, and consequently too often, when the women eat too much ; particularly if they eat succulent food ; as rich women, who lead an indolent and sedentary life ; as the greatest part of the women who live in large towns ; and as women, who giving suck, lose their milk, in consequence of ceasing to nurse the child, particularly if it be early, and while the milk abounds.

2°. The veinous *appendices* of the *uterus* elongate, and dilate themselves too easily, and consequently too often, on account of the tumefaction of the lactiferous vessels ; when their coats are naturally too soft, and lax ; as in persons of a very delicate constitution ; when they are too much mollified by the *fluor albus* ; as in women subject to this inconvenience : when they have been torn in violent deliveries, miscarriages, or the extraction of the *placenta* : or when they are partly eroded by some ulcer in the *uterus*.

3°. The blood makes too great efforts on the veinous *appendices*, and forces them consequently to open too often, when it is too abundant, as in a true *plethora*, which is made by too much nourishment, and too little

little exercise : when it is too much rarefied, as in the *false plethora*; or that it circulates with too much rapidity ; which happens in women who eat food that is too acrid, spicy, succulent, and of high flavour; who drink spirituous liquors; who use violent exercise; who sit up late at nights ; who have strong passions ; or who are exposed, by chance, to any acute fever.

II. *Of the menses which continue too long.* The too long duration of the *menses* depends on three causes : 1°. On the faultiness of the lactiferous vessels, which remain too long a time full of milky juice. 2°. On the faultiness of the venous *appendices*, which close themselves too slowly, and suffer, consequently, the blood to escape too long a time. 3°. On the faultiness of the blood, which passes too long a time into these *appendices* ; and therefore keeps them a long time dilated. These three different causes, as we have before remarked of those of the preceding article, may either act separately, or concur together, according to the nature of the more remote causes, on which they depend ; and which are going to be explained ; that renders the duration of the discharge more or less long.

1°. The lactiferous vessels remain too long a time full of the milky juice ; and compress, consequently, too long a time, the neighbouring veins : because their orifices are too small, through the faultiness of their natural conformation ; or through their being half obstructed by remains of the *fluor albus*, which occasions, that they do not suffer the milky lymph to escape sufficiently fast ; because the milky juice is very copious (*see N° I. Art. I.*) ; which occasions, that they are too long full of it ; and because the milky juice is too thick (*see N° I. Art. I.*) ; which prevents its being discharged as freely, and as quickly, as usual.

2°. The venous *appendices* are too long a time in closing, and shutting themselves up ; because their coats have been so much dilated, (*see below, N° II. Art. III.*) : because their natural elasticity is not sufficient,

cient, (*see N° II. Art. I.*) : or because they have been torn or eroded, (*see the same Number, Art. I.*)

3°. The blood passes too long a time, into the veinous *appendices*, because it abounds too much in all the vessels of the body, in consequence of a true or false *plethora*, (*see N° III. Art. I.*) : because it is retained in the veins of the *uterus*, too strongly comprest by the tumefaction of the lactiferous vessels, (*see below, N° I. Art. III.*) : or because it passes into the vessels of the *uterus*, with too much rapidity ; on account of the quickness with which it circulates, (*see N° III. Art. I.*)

III. *Of the menses which flow too copiously.* The copiousness of the *menses* is owing to three causes : 1°. The faultiness of the lactiferous vessels, which, in consequence of being too full of the milky juice, compres with so much force the veins surrounding them ; that almost all the blood, which passes thither, is obliged to turn off into the veinous *appendices* ; and to be discharged through them. 2°. The faultiness of the veinous *appendices*, of which the orifices, being too large, suffer the blood to escape through a too great bore ; and, consequently, in too great quantity. 3°. The faultiness of the blood, which flows too rapidly, and consequently in too great quantity. These three orders of causes may, as those in the preceding articles, be combined together, or otherwise, according to the affinity, or non-affinity of the remote causes, which are going to be explained ; and on which they depend ; that render the discharge of the *menses* more or less copious.

1°. The lactiferous vessels are too full of milky juice in women, with whom, the orifices of these vessels are naturally too strait, or partially obstructed, by the remains of the *fluor albus* ; and thence not in condition, to suffer the humour they contain, to be discharged into the *uterus*, (*see N° I. Art. II.*) : in whom the milky humour is very copious, and consequently fills too much the lactiferous vessels, (*see N° I. Art. I.*) : and in whom the milky juice is too thick,

OF THE DISEASES

...k, and can scarcely be discharged into the *uterus*,
(see N° 1. Art. I.)

2. The orifices of the venous *appendices* are too
large in the women, with whom, the coats, which
form them, are naturally too thin, or too much re-
laxed by the *fluor albus*, (see N° 2. Art. I.) : in whom,
the borders of these orifices have been torn in hard
labours, miscarriages, or the violent extraction of the
fetus, or the *placenta*, (see N° 2. Art. I.) : or in
whom, the borders have been eroded, or eaten away
by some ulcer of the *uterus*.

3°. The blood flows too rapidly, and, consequently,
too copiously in the women, in whom it passes in too
great a quantity into the venous *appendices* of the
uterus, (see N° 3. Art. II.) ; in whom it passes thither
with too much velocity (see N° 3. Art. II.) ; and in
whom the blood which passes thither is too fluid ; and
consequently too easily discharged ; as happens in all
cases of great solution of the blood.

IV. It should be remarked in the enumeration,
which has been made, that the too great frequency,
duration, and copiousness, of the *menses*, which con-
stitute the first class of cases, where the *menses* are ex-
cessive, depend often on the same causes ; or at least
on causes, that have much affinity. For which rea-
son, there is no room to wonder, it often happens by
accidental combinations, not only that the *menses* are,
at the same time, too frequent, and too long ; too long,
and too copious ; or too copious, and too frequent ;
which constitutes the second class of cases, where the
menses are still more excessive : but even, that they are
sometimes too frequent, copious, and long, at the same
time ; which constitutes the third class of cases, where
the *menses* are the most excessive. It would be useless
to enter into a more particular explanation of that
head, which may be easily supplied by the compara-
tive application of what has been already said.

§. III. *Causes of flooding.*

Floodings suppose always, either a too great dilatation of the veinous *appendices* of the *uterus*; or such as lasts too long a time: which occasions, that the blood is discharged in floodings, either too abundantly, when it is an *uterine hæmorrhage*, or too long a time, when it is a *dripping of the uterus*. But this dilatation of the veinous *appendices*, which is too great, or lasts too long, may be of two kinds. Either it is a simple dilatation of the orifices of the *appendices*, without injuring their continuity; or it is a dilatation, that does injure it; and, consequently, a true dilaceration, or division of the coats of the vessels. But let us examine, in particular, these two orders of causes.

I. The dilatations without injury to the continuity, or the simple dilatation of the orifices of the veinous *appendices*, proceed in floodings from the same causes, as in the excessive *menses*. For instance, very great dilatations must be always made in the orifices of the veinous *appendices*, whenever all the causes mentioned in N° 1. and 2. of *Art. III.* concur together; and then the blood flows very abundantly through them, while thus dilated; especially if it happen, that all the causes laid down in N° 3. of *Art. III.* are then conjoined together. In this case, consequently, there will be a very copious flooding, or a true *uterine hæmorrhage*, by the simple dilatations of the orifices of the veinous *appendices*, without any dilaceration: which will endure a shorter, or longer time, according to the duration of the causes, that produce the dilatation.

In the same manner a dilatation of these orifices must be made, moderate indeed, but nevertheless more long, and even also more obstinate, whenever all the causes enumerated in N° 1. and 2. *Art. II.* concur together: and then the blood flows in a very small quantity; but nevertheless for a long time, especially if the causes of N° 3. of *Art. II.* are conjoined. In this case, therefore, there will be, by the simple dilatation of the orifices of the *appendices*,

and without any dilaceration, a moderate, but long flooding ; that is to say, a simple *stillicidium uteri*, or dripping of the *uterus*.

II. The dilatations with solutions of continuity, or dilacerations of the orifices of the venous *appendices*, are owing to three causes, which it suffices here to point out ; because the particular discussion of them must be deferred to another occasion.

They are, 1°. Ulcers in the cavity of the *uterus*, more or less large, deep, and exedent ; placed at its bottom, sides, or neck ; and proceeding from several causes, that will be examined below, *Book II. Chapter IV.*

2°. Wounds, tears, or scratches ; which happen within the *uterus* in hard labours, miscarriages, and the extraction of a dead child, or an adhering *placenta*.

3°. Choppings, excoriations, or divisions of the coats of the vessels, caused in the internal surface of the *uterus*, by a too acrid *fluor albus* ; too pungent injections ; or too great distensions suffered in a difficult labour ; or by the strokes of a nail given in a delivery.

4°. Aneurisms, *varices*, and aneurismal, or varicous dilatations ; which happen in the vessels of the *uterus*, in consequence of a sudden suppression of the *menses*, or which succeed gradually to obstructions or *scirrusses* that turn the course of the circulation ; to *fungusses* ; to rotten flesh, which is formed in open cancers, or foul ulcers ; &c.

When any of these several causes act on a vessel of some magnitude, whether arterial, or venous ; and tear, or exede it, throughout its whole thickness ; it must bring on a copious flooding, or *uterine hemorrhage*, but it can only cause a moderate flooding, or a dripping of the *uterus*, when it only acts weakly, or in a small degree, on large vessels ; or where it tends only to exede, or lacerate meer capillary vessels, or such as are not large.

III. It should not be forgotten to add, to these internal causes of flooding, several others, which although external, contribute, nevertheless, to support, augment, and even introduce floodings, whenever there is any disposition to them in the *uterus*; or, in other words, any of the faultinesses that have been enumerated, even though this disposition or faultiness should be too minute of itself, to be alone capable of producing such an effect. The same causes may, also, accelerate the returns of the *menses*, by rendering the discharge of longer duration; or by augmenting the quantity; that is to say, by rendering the *menses* excessive; supposing that there may be in the lactiferous vessels, veinous *appendices*, or blood-vessels, any of the particular dispositions above explained. The following are the principal causes of this kind; with relation to which it suffices to point out the manner of their action.

1°. Excess of the heat of the air in summer; great fits, or violent *paroxysms* of fever; such as those, which precede or attend the eruption of the measles; or the eruption and suppuration of the small-pox; frequent and excessive watchings; too strong passions of the mind, such as anger, &c: because, in all these cases, the rarefaction of the blood is increased; and the rapidity of the circulation accelerated: which redoubles the action of the blood on the vessels of the *uterus*.

2°. The use of half baths, or baths, too hot; or the habit of warming the feet extremely; &c: because the rarefaction, which the heat produces in the inferior parts of the body, augments the velocity; and, consequently, the copiousness of the blood, that circulates in them; which occasions the vessels of the *uterus* to be more filled with it.

3°. The sudden action of cold on the state of the body: the effect of an unexpected fright: a chilly rain, with which the body is instantly affected; &c: because the cooling, or the spasmodic constriction, which happens then in the state of the body, forces the

blood to throw itself on the internal parts ; and, consequently, on the *uterus* itself.

4°. The too great use of coition ; or violent exercise ; as walking a long time, dancing much, jumping, &c : because, in these cases, the reiterated contractions of the muscles agitate the blood ; and augment the rapidity with which it circulates ; occasioning it to pass into the *uterus* with greater force. Besides the consideration, that coition, in particular, puts the fibres of the *uterus* into brisk and tonic contractions ; which turn the course of the circulation in it ; and force the blood to burst its own vessels.

5°. Falls ; shakes on horseback ; or the jumblings of a rough carriage : because the concussions, to which the *uterus* is thence exposed, force open the vessels ; and even, sometimes, tear them, when they are reluctant.

6°. Violent cries ; talking or reading with a loud voice ; the agitations of vomiting ; &c : because, in these cases, the muscles of respiration, and consequently of the *diaphragm*, as well as those of the *abdomen*, are in brisk and reiterated contractions ; which, in shaking, agitating, and jumbling the *uterus*, oblige the vessels to open ; and even sometimes lacerate them.

7°. The strong and continued strainings in a *diarrhoea*, *tenesmus*, &c ; or the efforts to lift some heavy load, &c : because the strong and tonic contraction of the muscles of respiration ; and, consequently, of the *diaphragm*, as well as of those of the *abdomen* ; press, and bear on the body of the *uterus* ; and burst the vessels in it.

8°. Miscarriages, hard labours, falls, blows, or strains in pregnant women, which affect ever so little the adhesion of the *placenta* to the *uterus*, &c : because, in these circumstances, the venous *appendices*, which are very much dilated on account of their bigness, discharge a large quantity of blood, as soon as they are opened ; and must continue to do the same for a long time ; from the difficulty there is of their closing

closing again, while the *uterus* is tumefied; and often, by the impossibility of doing it, so long as the *fetus*, or the afterbirth, remain in the *uterus*. But these particular cases will be examined in *Book II.*

9°. Lastly, the improper use of too strong emmenagogues, too acrid pessaries; too often repeated bleedings in the foot, &c. in the suppressions of the *menses*; and, what is yet worse, in the time of their natural cessation: because the action of these remedies, by encouraging too much the eruption of the *menses* at the time when the vessels of the *uterus*, being closed, oppose it most, tend almost always to cause such lacerations of these vessels, as are bad, and frequently fatal.

§. IV, *Explanation of the differences.*

All the differences, that are remarked among floodings, arise from the different kinds of the disorder; or from the different nature of the causes, which produce them; or from the different seat, which the cause of the disorder has in the *uterus*.

I. As the differences, which depend on the different kinds of the disorder, have been already enumerated in the description, *Art. I.* it will be sufficient to mention them here.

1°. When the fluxes of blood, too copious, or too long continued, retain, in some measure, the periods of the *menses*, they are to be treated only as *excessive menses*: but when they do not retain them at all, they are to be regarded as *floodings*.

2°. The *menses* may be excessive, by the frequency of their returns; by the duration of the flux; or by the copiousness of the blood that is evacuated; which may be from one cause simply, and this is then the first class of excessive *menses*. They may be also excessive from two of these causes acting together, and it is then the second: or they may be so from the three concurrently, and it is in such case the third.

3°. Floodings are, sometimes, very abundant; and then, whether they endure a long time, or a shorter,

they

they are called *hæmorrhages* of the *uterus*. Sometimes, on the contrary, they are very slight, but last a long time; and then they have the name of *stillicidium*, or dripping of the *uterus*, given to them.

II. The differences, which spring from the different nature of the causes, merit an elucidation somewhat more particular.

1°. Every discharge of blood from the *uterus*, whatever name be given to it, of excessive *menses*, or flooding, depends always either on the solution of the continuity of the vessels of the *uterus*; or, simply, on a faulty disposition, without any solution of continuity. *First difference.*

2°. Every discharge, which has for its cause, a solution of continuity of the vessels of the *uterus*, depends either on dilacerations, choppings, ulcers, or *varices* of the *uterus*. *Second difference.*

3°. Every discharge, which happens without solution of continuity, in the vessels of the *uterus*, supposes some faultiness in the lactiferous vessels, or the veinous *appendices*; or in the quantity, or the course of the blood. *Third difference.*

4°. The faultinesses of the lactiferous vessels, which may give rise to excessive *menses*, or floodings, are confined to their natural smallness; or to the accidental obstruction of their excretory orifices; which occasions, that they do not suffer the milky juice, that passes into them, to flow out, or only in a little quantity; and are consequently too often, too long, and too much full.

5°. The faultinesses of the veinous *appendices*, which may cause excessive *menses* or floodings, are confined to the natural softness, or some accidental mollification of their extremities; which occasions that they open too easily, remain too long in that state, and undergo it too often.

6°. The faultinesses of the blood, which brings on excessive *menses*, or floodings, are confined to a true or false *plethora*; and a too great velocity in the circulation of the blood; which occasions, that it forces

too often, too long, and too much, the orifices of the venous appendices.

III. The differences, which depend on the place, where the solution of continuity, or the local disposition, which causes the disorder, is situated, are neither numerous, nor important.

1°. This place is almost always in the cavity itself of the *uterus*; and rarely in the *vagina*. What is said above, in *Chapter I.*, of the place, from whence the *menses* come, may be examined.

2°. In fixing this cause in the *uterus*, where it commonly is: it may be in the *fundus*; the sides; or the orifice of the *uterus*; which occasions, that the patients feel the pains attending it, in different places; as at the reins; hips; thighs; groins; breech, or *pubis*.

3°. Supposing this cause in the *vagina*, where it may sometimes be, it may be placed higher, or lower, in the anterior, or posterior parts of the duct; which occasions, that the effects of it are referred sometimes to the *bladder*, and sometimes to the *uterus*.

§. V. SYMPTOMS.

1°. In all floodings, the patients are weak, low-spirited, and faint, to a greater or less degree, according to the copiousness, or the duration of them. This is a necessary consequence of the weakness, with which the contraction of the muscles is made; and that weakness proceeds both from the defect of animal spirits, when the blood itself is defective; and from the muscular fibres wanting their due tone, when the blood-vessels, which supply them, are not sufficiently full.

2°. The pulsations of the heart, and consequently those of the arteries, are little, slow, and weak; as well from the default of blood, as from that of animal spirits. *From the default of blood:* because the blood can only produce small, slow, and weak contractions, when it passes into the ventricles of the heart only in small quantities, slowly, and weakly. *From the default of animal spirits,* of which the quantity, velocity, and force,

force, diminishing with the blood, occasions that, they can then only produce little, slow, and weak contractions of the heart.

3°. The face is pale, and discoloured: because the blood, which ought to give it a colour, is defective in floodings; and does not then fill, as it ought, the capillary vessels of the skin. Moreover, although the paleness be universal, it is more observable, in the face, than elsewhere; because, as the skin is finer, the liveliness of the hue appears more there in the state of health; and consequently the paleness must be more sensible there, in the state of disease.

4°. The extremities are cold, as well because the blood, which is the source of the heat, can pass thither only in small quantity, when it is deficient in the body; as because, the heart, of which the contractions are weakned, can only propel it weakly; and even more weakly there than in the other parts, on account of these being more remote.

5°. The patients soon lose their appetite; and their disgust increases, in proportion to the continuance of the disease; which proceeds from two causes; 1°. From that the animal spirits flow in less quantity, in the nervous fibres of the tongue and stomach; which diminishes the sensibility of those organs. 2°. From that the blood, being deficient, furnishes less *saliva* and lymph of the stomach; which diminishes the action of those levens.

6°. However careful the patients may be to eat but little, and of those things which are wholsome, they still digest badly what they do eat, either from the deficience of the digestive levens, which are wholly wanting, or only supplied in small quantity; or from the *inertia* of the fibres of the stomach, which, being in a state of relaxation, do not assist the action of the levens.

7°. The patients grow apparently lean, for several reasons. First they eat but little. 2°. They digest badly what they do eat, and draw little chyle from it. 3°. Lastiy, they are exposed to a continual, and sometimes

times very great loss of blood : which makes a greater expence of nourishment than the food taken can supply.

8°. Obstructions of the *viscera* of the *abdomen* are often formed in these diseases : because the humours, which are secreted there, stagnate in their canals ; not being propelled through them as commonly, either by the circulation of blood, which is too much rebated ; or by the elasticity of the fibres of the *viscera* themselves ; which are not of a due tone, from the deficiency of animal spirits.

9°. The patients fall gradually into the state, known in medicine, by the name of *cachexy*, in which there is more lymph and *serum* in the vessels than blood : on account that the vessels, in proportion as the blood is lost, fill with *serum*, furnished by the fluids taken as drink. For the same reason, in all the diseases, where bleeding is frequently repeated, the blood afforded towards the end is always more serous than that at the beginning.

10°. The serous lymph, which abounds then in the blood, is rarely natural : but more frequently depraved, either by the mixture of ill prepared chyle, that the *prima viae* furnish, or by the mixture of recrementitious humours, particularly of the bile ; which the obstructions of the *viscera*, especially the liver, retain in the blood : whence the *cachexy* is augmented and aggravated.

11°. In this state, when the patients have stood or sat a long time, the feet, and legs, become œdematous ; because, on one hand, the blood, which stagnates in the vessels of these extremities, from whence it cannot return, but with difficulty, on account of its ascending, suffers the serous lymph, with which it surcharged, to separate more copiously in them, from whence it cannot easily return : and, on the other, the lymph, that overflows the lymphatic vessels of these parts, cannot get back, but with difficulty, and slowly ; and, in consequence of stagnating, tumefies all its own vessels.

12°. On

12°. On the contrary, when the patients keep their beds, the swelling of the inferior extremities goes down; because the horizontal situation of the body facilitates the circulation of blood and lymph in the parts: but at such times the face, the eyelids, and the part round the eyes, become œdematous: as these are the parts of the body which are most lax, and have the least elasticity; and in which the motion of the blood, and particularly the lymph, is the most easily diminished.

13°. The *œdema* increases gradually, by the continuation of the disorder; seizes the legs, thighs, and loins; and becomes at last an universal *ansarca*. Sometimes even the *serum* is extravasated in the *abdomen*, or the *thorax*, where there are, in these cavities, any obstacle, or local obstruction, which impedes the circulation of the blood, and the lymph.

14°. When the patients are standing, or sitting, and the orifice of the *uterus* is sufficiently free; the blood flows out of the *uterus* in proportion, as it comes into it; and in the same state; that is to say, fluid, red, hot, and without smell: but, if the orifice of the *uterus* be closed; or the women be laid down, the blood retained in the *uterus*, is fixed there, and produces clots, more or less large, hard, and foetid according as it stagnates there a longer or shorter time.

15°. These clots, when they present themselves to pass out, put the fibres of the *uterus* into a systaltic contraction; and force, by this means, a passage which is not however done without pain in the *uterus* and particularly in its orifice. This pain is greater or less, according as the parts are more or less inflamed, irritated, and sensible; as the orifice is more or less contracted; and as the clots are more or less large, or hard.

16°. The pain, which the patients feel, under such circumstances, often throws them into fainting fits, on account of the sympathetic reflux, which is made at the heart; and which diminishes its motion. The

one thing happens, and for the same reason ; when the stomach suffers by bad digestion, or the bowels by wind. The patients moreover faint often ; when they are affected by any accidental trouble of mind : or even when they exert themselves in any extraordinary manner ; or keep themselves standing an instant : because, in these cases, the circulation is diminished on a sudden. Faintings, and swoonings, are therefore, frequent accidents, in all considerable floodings.

17°. It may even happen, and it sometimes does, that the passing out of the clots, when it is attended with acute pain, brings on convulsions, or spasmodic motions ; because that then, the violent reflux, which is made in the *uterus*, puts several parts, that have sympathetic relations with it, into strong and necessarily convulsive contractions.

18°. When there is no solution of continuity in the *uterus*, the floodings, when they stop, are either not succeeded by any discharge of *fluor albus*, or only by a slight one. But it is quite otherwise, when there is a solution of continuity, particularly if it be considerable; extended over the whole of the *uterus*; of long standing ; &c.

§. VI. DIAGNOSTIC.

The diagnostic turns upon four articles ; 1°. On the nature ; 2°. On the kinds ; 3°. On the causes ; 4°. On the seat of the disease : and there are none of these articles but what merit to be discussed with attention.

I. With regard to the nature of the disorder, the diagnostic carries nothing of difficulty with it. When a woman, or a girl, is subject to a discharge of blood, more continued, or more frequent than common ; particularly if it weaken her ; and bring on the greatest part of the accidents, which are enumerated above in describing this disorder, Article I, it may be taken for granted, that this is a discharge from the *uterus* against nature.

None

None but girls, or women, very unexperienced, can confound the discharges of this kind with the voiding blood from the bladder. And even in such case the mistake could not continue long, for it would be easily cleared up, 1°. By teaching them the difference betwixt the *urethra*, and *vagina*; in order, that they may distinguish from which of these two passages the blood flows. 2°. By making them observe, whether the blood ever flows, but when they make water; in which case, it must come from the bladder; or whether constantly, without any effort to make water; in which case it must come from the *uterus* or the *vagina*. 3°. By examining one's self, the urine, they have made; for if the blood come from the bladder, it must be very much, and very intimately mixt with it: whereas it would not be so, or only in strings, and interspersedly, if it came from the *vagina* or the *uterus*. 4°. Lastly, if there yet remains any doubt, by making the patients examine: or, if it be necessary, by examining one's self: in order to form a judgment, whether it be from the *urethra* or *vagina* the blood flows.

II. There is scarcely any more difficulty in distinguishing the different kinds of discharges of blood, which comes from the *uterus*.

It is at first only to be examined, if the discharges retain any thing of the periods of the *menses*; in which case they should only be considered simply, as *excessive menses*: or if they retain nothing at all of it: in which case, they must be treated as true floodings.

In the first case, it is only to be observed from whence the *menses* are excessive: whether it be by copiousness; or duration; or only the frequency of the returns; whether it be by the copiousness, and the duration, both at the same time; by the duration and the frequency; or by the frequency and the copiousness; or, in short, whether it be, by the copiousness, duration, and frequency of the returns all at the same time; in order to decide, if the excessive *menses* be of the *first*, *second*, or *third* order.

There

There is nothing more to be done in the second case, than to judge of the copiousness of the flooding. If it be very great, it is an *haemorrhage* of the *uterus*; whether the discharge last a long time, or cease soon. If it be, on the contrary, moderate, but long, and obstinate, it is a *stillicidium* or *ploratus uteri*; that is to say, a dripping or weeping of the *uterus*.

III. It is much more difficult to know, in a certain manner, the causes of the different kinds of flooding: and often, whatever attention may be given to it, nothing can be had with relation to this article, important as it is to the cure, but meer conjectures.

1°. For instance, there is reason to suspect some solution of continuity is made in the *uterus*, 1°. When the discharges contrary to nature are true floodings: 2°. When some cause, capable of producing a solution of continuity in the vessels of the *uterus*, has preceded: 3°. When the patient feels heat, tension, and pain in the body of the *uterus*: 4°. When the cessation, or the intermission of the discharge, are never perfect: but there always remains some dripping, sometimes of a white, sometimes of a red colour: 5°. When the dripping, which remains, is acrid, of a bad smell, and to be suspected of purulence.

2°. Provided there be a certainty of a solution of continuity in the *uterus*, it is not very material of what kind it may be: because the same remedies are equally proper in all: and moreover lacerations, gashes, and open *varices*, all turn at last to ulcers. Nevertheless, if it be desired to push the inquiry to this point, there will be foundation to suspect,

That the solution of continuity proceeds from ulcers; when the humour, which is discharged, is purulent; when there has previously been any ill treated inflammation, or abscess: when the patients have been a long time subject to a very acrid *fluor albus*; and when there are proofs, that injections of a corrosive nature, have been made into the *uterus*.

That they are simple lacerations, or gashes not ulcerated; when there is no appearance of purulence

in the humour that is discharged: and when it is, moreover, known, that the *uterus* has suffered great distentions, and stretchings, in a hard labour, or in the extract of the afterbirth.

That they are *varices* burst; when the discharge happens suddenly, is very abundant, and has succeeded to a suppression of the *menses*, which has been of long continuance, and attended with heaviness, and tumefaction in the *uterus*: or that it comes on, in consequence of a *schirrus*, or cancer in the *uterus*; which, by turning the course of the circulation, has rendered several of the veins varicous.

3°. It is conjectured, on the contrary, that there is no solution of continuity in the *uterus*; and that the disorder only proceeds from the abundance, and the rarefaction of the blood, or the depraved state of the vessels of the *uterus*; when the circumstances are found to be directly opposite to those laid down in n° 2: that is to say; 1°. When the discharges contrary to nature are only excessive *menses*: 2°. When no cause, capable of producing a solution of continuity in the *uterus*, has preceded: 3°. When the patients perceive, neither pain, nor tension, in the *uterus*; nor even much heat: 4°. When the cessation, or the intermission, of the discharge is perfect, absolute, and without any dripping remaining: 5°. When there is neither acrimony, smell, nor appearance of purulence, in the humour, which is discharged at the end of the flooding; supposing there still remains any dripping.

4°. When there is no reason to suspect any solution of continuity in the *uterus*, a *plethora*, or a rarefaction of the blood; or the rapidity with which it circulates; must be regarded, as the *first* cause of the disorder; and as that, indeed, which is most common: and a conviction may be had of the reality of these causes: 1°. From the state of the pulse; which is full, hard, great, frequent, and quick: 2°. From the inspection of the face of the patients, which is fresh, roseay, and full of colour, at least when the disorder begins: 3°. From the quick success of repeated bleedings, early practised.

The

The second rank may be given to the relaxation of the veinous *appendices* of the *uterus*; when their elasticity being defective, they open too readily, and reclose themselves too slowly. The signs, which indicate this cause, are, 1°. The continuance, and the obstinacy of the disorder: 2°. The weak and delicate constitution of the patient; which gives reason to presume a weakness in the vessels, and coats of the *uterus*: 3°. The number of pregnancies, which have preceded; and which have weaken'd the elasticity of the fibres of the *uterus*; especially in women, who have begun too young to have children: 4°. The continuance of the *fluor albus*; which has relaxed the vessels of the *uterus*.

Lastly, The faultiness of the vermicular or lactiferous vessels of the *uterus*, when their excretory ori-fices are stopt up, or too strait; which produces too frequent, copious, and long continued *menses*; may be regarded as the *third* cause of the disorder; and as that which is most rare. This cause never takes place, but in patients, who have been a long time irregular in their *menses*, or have had them very late, and in whom, for these reasons, there is room to suspect, that the excretory ori-fices of the lactiferous vessels are ob-structed, or naturally too close.

IV. It is not of much consequence to endeavour to distinguish the seat of the disorder; that is to say, the place from whence the blood comes: it so seldom comes from the *vagina*, that this case may be overlooked, as if it never happened. But if this inquiry be thought of any service for the prognostic, or the cure, it may be easily satisfied by examining the patient, in order to judge of the state of the vessels and coats of the *vagina*; or what is yet more important and decisive, the state of the ori-fice of the *uterus*, which is always dilated and open, when the blood flows from the *uterus*; but shut, and close, when it comes from the *vagina*.

As to what concerns the particular place, where the cause of the disorder is seated in the *uterus*, or *vagina*, it is easy to be ascertained; if the nicety of examination

mination be carried so far ; by informing one's self of the different places, to which the patient refers the effects of tension, heat, and pain, which she feels : for there is ground to infer thence, that the parts of the *uterus*, or the *vagina*, the most affected, are those, which correspond with the places where the patient feels the disorder most.

§. VII. PROGNOSTIC.

1°. In general, every flooding of the *uterus*, of what kind soever it be, and from what cause soever it proceeds, is a bad disease, and often dangerous ; on account of its bringing on symptoms of great consequence : as disgust of food, weakness, tabidness, *syncope*, &c ; and that it has often fatal consequences, as *cachexy*, *dropsey*, *consumption*, &c.

2°. A yet worse prognostic should be made on the floodings, which are of long standing ; not only because their duration is a mark, that they depend on a very obstinate cause ; but also because the disorder must, by time, greatly change the quality of the blood, and the elasticity of the vessels.

3°. The same judgments may be made on the floodings, which happen to old women ; in whom they are almost always fatal : as well because that, in them, who have not the *menses*, the flooding can only proceed from some violence, which has lacerated the vessels ; as that the blood is not of a due sweetnes, nor sufficiently balsamic, to consolidate the divided vessels ; and as, moreover, the vessels themselves have not sufficient force, and spring, to close themselves and, by closing, to stop the discharge.

4°. Floodings are generally more difficult to be cured, than excessive *menses* : because the former depend commonly on solutions of continuity of the vessels of the *uterus* ; which are not easy to be remedied : whereas the latter proceed, most frequently, only from dilatation, softnes, or relaxation of these vessels : which recover themselves, provided the causes which have brought them to that state, are removed.

5°. Excessive *menses* of the *first order*, are less dangerous, and more easy to be cured, than those of the *second*: and those of the *second*, than those of the *third*: because those of the *first* depend only on one cause alone: whereas those of the *second* depend on the concurrence of two causes: and those of the *third* on three.

6°. It is more easy to cure the floodings, which depend only on the quantity, rarefaction, and impetuosity of the blood, than those which suppose some faultiness in the interior of the *uterus*: because the flooding itself diminishes the quantity, rarefaction, and impetuosity of the blood; and that, at all events, it is easy to remedy it by bleeding. Whereas the faultinesses of the interior of the *uterus* are always very obstinate in yielding to medicines.

7°. Among the different vitiations, which may happen to the vessels of the *uterus*, dilaceration, erosion, and exulceration; or, in other words, solutions of continuity; are more difficult to be cured, than relaxation, dilatation, undue tone, and the *inertia* of the vessels; that is to say, than the other faults which do not suppose any solution of continuity. The floodings, therefore, which depend on the first causes, must be always more difficult to be cured, than those which depend on the second.

8°. The floodings, that are very abundant, are more dangerous than the simple drippings of the *uterus*; because, in the abundant floodings, much blood is lost; and very quickly; which causes accidents more numerous, sudden, and bad: whereas the dripping of the *uterus*, where the loss is always less great, may be supported, and for a considerable time, without any very momentous consequence.

9°. Nevertheless, it is often more difficult to cure the dripping of the *uterus*, than copious floodings: because these suppose always some antient faultiness in the interior of the *uterus*; and often such as has degenerated into an ulcer: and of which, consequently, the cure is very difficult: whereas the abundant floodings proceed oftener from the quantity, rarefaction,

and velocity of the blood; or are owing to nothing more in the *uterus*, than recent lacerations; which may be sometimes healed without much trouble.

§. VIII. *Method of cure.*

The method of cure of floodings has relation to three cases, 1°. That of a copious and actual discharge, whether it be casual; or only a return of excessive *menses*: 2°. That of an actual discharge, moderate indeed, but long, and obstinate; that is to say, of a dripping of the *uterus*; whether the discharge preserve any relation to the period of the *menses*; or do not preserve any: 3°. That of one of those two kinds of discharge already cured, or at least suspended; but subject to returns; which it is of consequence to prevent. The method of cure, that is proper to each of these cases, will be here explained briefly; but with sufficient distinctness.

FIRST CASE.

Actual and copious flooding, or hæmorrhage of the uterus.

As this case is urgent, it is proper to apply a quick and effectual remedy to it: and, in order to this, to endeavour to effect, with prudence, the four following intentions of cure: 1°. To diminish the quantity of blood, which passes into the vessels of the *uterus*; and the impetuosity with which it does pass: 2°. To strengthen the elasticity of the vessels of the *uterus* too much dilated, or relaxed: 3°. To moderate, by narcotics taken in several small doses, the too great sensibility of the *uterus*, and the systaltic contractions, which this sensibility brings on; and which supports the discharge of blood: 4°. Lastly, to quiet, and moderate the rarefaction of the blood; or, at least, to correct its too great fluidity, and acrimony; if there be proofs, that it is faulty in one of these points. On these principles,

1°. The patients must be directed to keep perfectly quiet; and with the strictest constancy in bed. The most proper position is, to lie on the back: because the *uterus* is then more free. Several authors advise, to keep the patients with the breech raised higher than the belly; and it must be confessed, that this situation seems, at first, very proper, to moderate the discharge: but it is easily collected, that it tends to occasion the blood's being retained in the cavity of the *uterus*; and concreting there in clots; which can only pass out by fits; and not at all without contractions of the *uterus*, of which the least effect is to renew the extravasation of the blood. Instead, therefore, of adopting this practice, it is much better to put the patients in an horizontal situation; which leaves the blood free to be discharged, as fast as it is extravasated, without giving it the time to coagulate. Common mattrasses of wool are unsuitable in this disease: because they heat the patients, and retain the blood under them, without suffering it to penetrate. It would be better to lay them on mattrasses of straw: but if they find these too hard, those of hair may be best used. Moreover, it is not sufficient, that the patients be in bed; but it is proper, they take the strictest care not to move, speak, and, if they can avoid it, even not to think. At least it is certain, that too brisk motion, too loud talking, and too sensible inquietude, are capable of increasing, and sometimes of renewing the flooding.

2°. In this case, bleeding in the arm is the most certain, and the most quick of all remedies. It diminishes the quantity of blood, which goes to the vessels of the *uterus*, by diminishing the quantity, that is in the body. By diminishing the effort of the contractions of the heart, it diminishes, at the same time, the impetuosity with which the blood is propelled in these vessels. It tends then, in a double manner, to diminish the force, which the blood exerts on the open vessels of the *uterus*, both by the diminution of the quantity of blood that goes thither; and by the

diminution of the impetuosity with which it does go; and, consequently, nothing is so efficacious as bleeding in the arm, to put these vessels in a state of reclosure. But it is necessary, that this relief come soon; and while the vessels still preserve the whole of their elasticity: for so certain an effect must not be expected, when, in consequence of being a long time dilated, they have lost their due tone. From whence, it is very easy to conclude, that six bleedings, quickly practised, will have more success, than twelve practised too late; or at too great intervals.

It is not possible to determine, either the number of the bleedings, or the quantity of blood, that should be taken at each. This must be regulated by a consideration of the strength, and age of the patients; their state of pulse; the violence of the disorder, &c. But it may be said in general, that in a great flooding, where there is imminent danger, the bleeding should be repeated at first, from four hours to four hours; or, at least, for four or five times, in the first twenty-four hours; and each should be, from twelve to fifteen ounces; unless some very strong counter indications forbid it.

The day after, some little diminution may be made in the number, or quantity taken at each time; if it be observed, that the violence of the disorder be abated; but it should be remembered, that it is better in this disease, there should be two bleedings more than is requisite, than that one should be omitted that is necessary. Persons about the patient are always ready to object idly, that she has already lost a great quantity of blood; and the repeating the bleeding, so often, is taking away all her strength: but a physician, who examines the state of the pulse, and judges with accuracy, should not be induced to stop on account of these remonstrances.

It must, however, be acknowledged, that bleedings were not so much formerly practised in this disease. Instead of it, strong frictions¹ were con-

¹ Galenus, I. ad Glaucon. Cap. 14.

stantly employed in the arms, and superior parts¹; very light ligatures made on the fingers, arms, legs, and knees; and large cupping-glasses² applied on the breasts, &c. All these methods of practice were very harassing to the patient; and but of little efficacy for the cure of the disorder; but they were employed, however, and with confidence: because they had the suffrages of the most celebrated physicians of antiquity. It is, not without difficulty, this prepossession has been removed. It required time to know; and, perhaps, still more to dare to declare; that these practices, so supported by authority, were less serviceable than bleeding; not to say, that they were wholly without use. But, at length, it has been said, and with such effect, that they are intirely laid aside at present.

3° Of itself, purging is not indicated in floodings; and much less vomiting. It seems even, that there is reason to fear the efforts of stool, or vomiting may augment it: and, indeed, that often happens. Nevertheless, there are occasions, in which it is serviceable, and even requisite, to purge the patients; and sometimes even to give them vomits: and this has often been attended with such success, as to stop the flooding immediately. It is true, indeed, there is a difficulty in distinguishing these occasions *judicium difficile*. It will be shewn below, in speaking of the precautions necessary in the cure of floodings, by what signs they may be discovered. Nothing more is necessary here, than to remark that the purges, employed in these cases, may be such as are common; as manna, cassia, the vegetable salt, and even rhubarb, in substance; and tamarinds, and follicles of sena in infusion. As to vomits, the most safe, and useful, is *ipecacuana* in powder, in the dose of twenty, or twenty-five grains, in a dish of tea. But in these cases, even where the

¹ Galenus, I. ad Glaucon. Cap. Cap. 64.

Paulus Aegineta, *De Re Medicâ*.

¹⁴ Hippocrates, II. *de Morb.* Lib. 3. Cap. 64.

Mulier. in Princ.

² Hippocrates, Sect. 5. *Apho-*

Aetius, Tetrabib. IV. Sermon. 4. *rism. 50.*

remedies are the most indicated, they must never be employed, but after having sufficiently emptied the vessels by bleeding.

4°. In proportion as the quantity of blood in the body is diminished, and the vessels of the *uterus* rendered more lax by bleeding, it should be endeavoured to reclose the veinous *appendices* of those vessels, which are too much dilated, and even sometimes divided: and, in this view, it is proper to use astringents in form of apozems, or bolusses.

These apozems may be made with the decoction of the astringent plants; as plantain, borage, yarrow, white nettle, and several others of the same nature, that may be seen in the following article. But it is better to employ, in apozems, the juice itself of these plants exprest, and well clarified, in the quantity of three or four ounces for each dose; to which is added, about an ounce of some proper syrup; as of dry roses, myrtle berries, coral, pomegranate, and comfrey.

With respect to the bolusses, the ingredients may be dragons blood, crude *terra Japonica*, mastic, red coral prepared, amber, prepared egg-shell, roch alum, balaustines, pomegranate bark, *lapis haematis*, astringent saffron of Mars, &c. Two, three, or more of these drugs, should be selected; and, being pounded, ten, twelve, or fifteen grains of each should be chosen for every dose; and being incorporated with some of the syrups, that have been mentioned, they should be made into a bolus. Amongst these bolusses, those most used, are made with dragons blood, roch alum, and brown sugar, levigated very finely, and employed each in the quantity of fifteen grains for every dose.

As broth only is given to the patients the first days, from four hours to four hours, one of the apozems, or bolusses; or, where the disorder is urgent, even one of each at the same time; are given in the intervals of the broth. At the end of two hours, betwixt these medicines and the broth, some ptisan acidulated

acidulated is also given two or three times, as drink to the patient, to make the medicines pass the better.

5°. When the flooding is violent, and there is a necessity to check it quickly, one or two pinches of the flower of Carline thistle, in Latin, *scolymus sylvestris*, or *chamæleon*, cut very small, may be taken in each mess of broth: or, in defect of these flowers, a dram of the *scrotum* of a goat, or hare, diluted with the broth: these remedies have nothing suspicious in them, and experience has shewn, that they are very proper to check, and even to stop floodings.

6°. As there are always, in copious floodings, dull, painful sensations in the *uterus*, or its neck, caused by the eruption of the blood, its retention in the *uterus*, or the passing out of the clots; and as these sensations keep the patients in an involuntary agitation; and what is worse, throw the *uterus* into contractions, which supports, and augments the disorder; it is of the last importance, to quiet these sensations by the use of narcotics. In this intention, one or two heads of white poppies should be boiled in the ptisan; or there should be added a little syrup of *diacodium* to each apozem; or some drops of anodyne tincture to each bolus: and the quantities, proportioned in such manner, that they may keep the patients in a kind of insensibility, without throwing them into too great a degree of dosing.

7°. It may be easily judged, that it is proper in floodings, to keep the patients to a very slender diet, to avoid replacing, by too abundant fresh nourishment, the quantity of blood which is taken away by the bleedings; and that only a very insipid, and even somewhat glutinous food, should be allowed them, to sweeten the blood; and render it more proper to consolidate the vessels. On this account, the patients are confined to broth, which is only given them from four hours to four hours. This broth must be weak, and without salt; and it is commonly made with a chicken, or a slice of veal: and when it is desired to render

render them more incrassating, one or two roots of yellow mallows split, or cut into slices, is added: or the broths themselves may be made with a knuckle of veal, or even with fish, when there is occasion to quiet the effervescence, and rarefaction of the blood; the belly of the chicken is to be filled with melon seeds, husked and bruised; or an ounce of it tied up in a linnen rag, is put into the pot: or each mess is made an emulsion, by passing it over a dram or two of the seed, reduced into a very fine paste. Sometimes, in the same circumstances, it is thought sufficient to boil some roots or leaves of forrel in the broth; and then the not making them into an emulsion may be dispensed with.

8°. The patients must be kept to this diet, slender as it is, so long as the violence of the disease continues. When it is abated, a nourishment somewhat more substantial may be permitted: but, instead of making the broths stronger, by adding beef or mutton, which renders them at the same time more acrid, it is much better to put into the pot a bowlful of rice, in order to give a little more solidity to them; or to add, to each mess, some spoonfuls of rice, or oatmeal, well boiled; or of lentil potage; or to permit a little jelly to be taken in the intervals of the broth. In the sequel, according as the cure advances, there may be allowed yolks of eggs in the broth; eggs boiled in the shell; a little rice, or soup; &c: but care must be taken not to be too forward in this.

9°. From the beginning, all use of wine should be prohibited; and nothing given for common drink, but a ptisan slightly astringent. In the following article, a great number of plants, that may be employed, will be enumerated; but those most in use are the roots of the comfrey, common knotgrafs, bistort, &c; and the leaves of yarrow, plantain, white nettle, &c. It is not proper to employ more than one of these kinds of roots, and one of the leaves, that the ptisan may be very weak; and pass the better: and that the patient may drink more of it. A slight decoction

tion of the wood of the mastic tree rasped, or a weak tincture of *terra japonica*, is often administered with success.

10°. Preference should be given to those ptisans, of that which is made with the rind of two or three four unripe oranges; or with the root of sorrel: when there are proofs, or even suspicions only, of the solution or rarefaction of the blood; and, in these cases, ptisans of this kind act sometimes successfully; which has induced several authors to recommend them as specifics.

11°. As it sometimes happens the patients fall into fainting fits, either more slight or deep, which always alarm, and indeed with reason, something should be always had in readiness, that may be used on such occasions. At first it may be thought sufficient to put under the patient's nose vinegar simply, vinegar of tarragon, or theriacal vinegar, *sal volatile oleosum*, *l'eau des Carmes*; &c; to rub their temples and nose with vinegar, Hungary water, *l'eau des Carmes*, &c; to throw cold water on their faces, &c: but, if this be not sufficient to bring them to themselves, it is proper to give them the *confettio-hyacinthi*, or *alkermes*, in orange-flower water; or a spoonful of the wine of Rota or Alicant; or even a little of the *l'eau des Carmes* mixt with water.

12°. As these faintings proceed often only from some clot of blood detained at the orifice of the *uterus*; which, in striving to pass, it stops up the passage; it is proper in such cases to draw out the clot as soon as possible: carefully avoiding, however, to do the least violence either to the *uterus*, or its orifice.

Most commonly, by the method here proposed, prudently and carefully conducted, either the flooding is absolutely stopt; which leaves nothing more to be done, than what regards the recovery: or at least it is diminished to such a degree, as to be reduced to a simple dripping of the *uterus*; of which the method of cure will be seen in the next article. But it sometimes

times happens, also, when the vessels of the *uterus* are dilacerated, or eroded, that the violence of the flooding maintains its ground, in spite of the remedies hitherto proposed; and in such cases a physician must employ the most effectual remedies, without thinking too much of the danger that may result from their use. These remedies are almost all exterior; as fomentations, plasters, cataplasms, pessaries, injections in the *uterus*, lotions of the feet and legs in cold water, &c; of which we are going to speak in proper order.

I. Fomentations are the least efficacious of the external remedies. They are made with a strong decoction of the roots of bistort, or of common knot-grafts; of the leaves, or seed-vessels of plantain; and of *equisetum*, or horsetail; of red roses; of pomegranate bark; of balaustines, myrtle berries; &c; boiled in the water of a smith's forge: and a piece of linnen doubled several times, or of fine flannel, is to be dipt in them, and put upon the belly, or the *pubis*, after being prest. Sometimes it is thought sufficient, to apply a sponge, that has been boiled in vinegar; care being taken to pres it first. But it is proper to intimate, that, in order to render these fomentations useful, they should be employed of a very small degree of warmth; or indeed almost cold; without which they would augment the flooding by the heat, rather than diminish it by their proper quality; and this remark holds good, in the same manner, with all the topical remedies that follow.

II. Plasters are not more efficacious than fomentations; or perhaps even less. They are applied on the loins, and the navel, in order to leave room for the other remedies. They may be compounded, for this particular purpose, of any astringents, that may be chosen: but commonly those are employed which are found in the shops: as the *emplastrum pro matrice*, *emplastrum de masticbe*, *emplastrum comitissae*, *emplastrum contra rupturam*, &c.

III. Cataplasms have a little more reputation ; and appear to merit it. They are applied on the *pubis* only ; and sometimes on the *pubis*, and *os sacrum*. They are composed in several manners ; some are made with leaves of nettles fried in a pan ; with spiders webs fried in the same manner with a little vinegar ; with foot in powder, beaten with the yolks of eggs, and a little vinegar of roses, of which a kind of omelet is made ; with bole in powder, diluted with the juice of plantain, and a little vinegar ; with the dung of an ass or an hog, diluted with a little vinegar ; and with plaster reduced to powder, mixt with a little gum Arabic torrefied, and tempered into a soft paste, with three or four whites of eggs well beaten.

IV. Pessaries are much the same as plasters ; but as they are put nearer the seat of the disorder, they are considered as more efficacious. There is, nevertheless, an inconvenience that attends their use : which is, that by stopping the passage outwards of the blood, they occasion it to stagnate in the *uterus*, and coagulate there in clots ; which is not to be prevented by any other means, than avoiding to leave the pessaries for any long time in their place.

These pessaries are made, 1°. first with the juices of astringent plants ; as plantain, yarrow, common knot-gras, and nettle : and with astringent powders ; as those of balaustines, galls, pomegranate bark, &c : which are tempered together with the white of an egg, of which, a kind of stiff paste is made ; and wrapt up in gause, or clear taffety, in order to be able to introduce it into the *vagina*.

2°. With the powders of the *hypocistis*, mastic, and dragons blood, tempered in the juice of purslain, or of plantain ; but left sufficiently fluid, to admit of being absorbed, by little balls of cotton : which, being charged with this juice, are to be introduced into the *vagina*, after having tied a thread to each.

3°. With

3°. With the dung of an hog, or ass, impregnated with the juice of plantain or purslain; and tempered with a little mucilage of the seed of quinces, or of gum tragacanth, prepared with rose water, of which a stiff paste is made; and wrapt up in gause, or taffety, to render it capable of being introduced into the *vagina*. This last pessary is recommended as an infallible specific.

V. The effect of injections in the *uterus* may be yet much more depended upon, than that of the pessaries: because they reach with more certainty to the seat of the disorder. But, for this reason, it is also requisite to employ them with great prudence; and never to compose them; but of such astringents as are not capable of affecting the substance of the *uterus*.

They may be made, with full security, of the decoctions of the roots or leaves of astringent plants; or their expressed juices. Among these juices, the most recommended are, those of plantain, nettle, yarrow, comfrey, &c. These decoctions, or juices, are sometimes employed without any addition: but sometimes a little gum tragacanth is dissolved in them; or a little starch or dragons blood is tempered with them. If we might believe the greatest part of the authors, the preference would be given to all other injections, of that of the expressed juice of the dung of a young ass; the virtue of which is boasted, as being approved in cases of flooding.

VI. It was in use among the antients, to make oxycrate be drunk in all losses of blood, and even in floodings. It is true, indeed, they used it with more moderation in such cases: because of the delicacy and nervous substance of the *uterus*. This practice does not obtain at present: but instead of oxycrate we make use in these cases, when the danger is pressing, of spirit of salt, or vitriol, dulcified; or what is better, the water of Rabel; of which, a sufficient quantity to give an agreeable acidity, is added to the ptisan; which is sweetned, and corrected, with some of the syrup

syrup of comfrey, or dry roses. I make use of this last remedy with very great success.

VII. The patients feet may be held with great safety in cold water, or even, if it be preferred, in an astringent decoction ; which has been suffered to grow cold. It has been shewn, in the preceding Chapter, that warm water, in which the feet are dipt, by drawing the blood into the trunk of the *aorta descendens*, draws it, at the same time, into the arteries of the *uterus*; that spring from it : which contributes to cause, or augment, the discharge of the *menses*. From hence it is easy to conclude, from the reverse of this reason, that cold water, into which the feet are put, as it retards the course of the blood in the trunk of the *aorta descendens*, must retard it also in the arteries that go from it, to distribute themselves in the *uterus*: which must tend to diminish, or even to stop a flooding.

SECOND CASE.

Moderate actual discharge of blood; or dripping of the uterus.

The dripping of the *uterus* may be of two kinds : in the one, this disorder is the principal disease ; which has begun, and still continues of itself : in the other, it is a symptomatic disease ; which succeeds an hæmorrhage of the *uterus* gradually decreased, either by the effect of the medicines, or by the loss of blood, in consequence of the continuation of the flooding alone.

In both these cases, it is proper to bleed in the arm, according to exigence of the accidents, and the strength of the patients : but it should be less than in the hæmorrhage of the *uterus* ; especially in the symptomatic *dripping*, where the disorder is already greatly reduced in degree, by the hæmorrhage which has preceded ; and by the bleedings which there has been a necessity to make, in order to cure it.

It is proper, in the same manner, in both these cases, to purge the patients from time to time ; and even to vomit them, if nothing forbid it : particularly

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It is proper, in the same manner, in both these cases, to purge the patients from time to time ; and even to vomit them, if nothing forbid it : particularly

larly in the cases that will be explained below, in speaking of the precautions to be observed in treating this disorder. But there is always more safety, and less inconvenience, in pursuing one or other of these measures in the drippings which are principal, than in those which are symptomatic : because, in the former, the patient has more strength ; and there is, moreover, less danger of increasing the discharge than in the latter, where there is always room to dread the re-opening the vessels, that are not well closed. If purging be thought proper, the cathartics may be employed, that are thought most suitable to the strength, and constitution of the patient : but if vomiting seem advisable, it is always best to give the preference to *ippecacuana*, in a moderate, but sufficient dose.

After having employed bleeding, and purging ; and, by their means, emptied the vessels, and the *prima viae* ; it is proper to endeavour to remove the causes, which support the disorder. If it depend on an ulcer, *scirrhus*, or cancer of the *uterus*, there should be joined to the remedies proper to these disorders, or at least to the palliatives, some gentle astringents, in order to diminish the loss of blood ; and they may be chosen from among those, which are going to be proposed. But if the dripping proceed only from some of the ordinary causes ; which may be reduced to three classes ; 1°. To the relaxation, and want of due tone of the veinous *appendices*, which do not close as they ought ; 2°. To the slight and recent dilaceration of some of the *appendices* ; which find a difficulty in reuniting and reclosing ; 3°. To the obstruction of the lactiferous vessels ; which, not emptying, comprehends consequently the veins, and maintain a constant dilatation of the veinous *appendices* ; it is proper, in such cases, to employ the remedies peculiar to each of these causes, accordingly as they will be displayed in the following articles.

I. In the case, therefore, of relaxation, and want of due tone of the veinous *appendices*, 1°. Recourfe should

should be had to astringent remedies, capable of restoring the elasticity of those parts, and putting them in a condition to contract themselves sufficiently, to be reclosed. As this class of medicines is very extensive, it will be sufficient to propose here the several articles, that are most recommended ; and to mark, with an asterisk, those which are most in use : though it will not be vouched, that the preference, which is given, may not be in some instances the result of prejudice, or fashion.

VEGETABLES.

Roots.

* Tormentil,	In decoction, in the dose of, from half an ounce to an ounce.
* Bistort,	
* Dropwort,	
* Pimpernel,	
* Strawberry,	
* Cinquefoil,	
Herb Robert,	In substance, reduced to powder, from a scruple to two scruples.

LEAVES.

* Common knotgrafs,	{	In ptisan and decoction, from a quarter of a pint to half a pint. The expressed juice clarified, from two ounces to four.
* Plantain,		
* Yarrow,		
* Shepherds purse,		
Horse-tail,		
Mouse-ear,		
* Pimpernel,		
* White nettle,		
Myrtle,		
Cinquefoil,		
Periwinkle,		
Golden rod,		
Lungwort,		
Tender leaves of oak,		
Winter green,		
Moneywort,		
Selfheal,		
Betony,		

FLOWERS.

* Red Provence roses,	In decoction, from one ounce to two.
* Balaustines,	In substance, reduced to powder, from one scruple to
Flowers of the quince tree,	two.

FRUITS.

Nuts of the cypress tree,	In decoction, from one dram to two.
Galls,	
Acorns, and their <i>calyces</i> or <i>capsulas</i> ,	
Seed of sumach,	
Myrtle berries,	
Dried rind of pomegranates,	In substance, from one scruple to two.
Fresh rind of green oranges,	The rind of four oranges must be boiled in two pints of water, as ptisan.

JUICES.

Terra Japonica,	In substance, from one scruple to two.
Mastic,	
Dragons blood,	
<i>Hypocistis</i> ,	
True <i>Acacia</i> ,	

WOODS.

Sanders,	Rasped, and in decoction, from half an ounce to an ounce.
Mistletoe of the oak,	
Mastic tree,	

BALSAWS

BALSAM S.

Of <i>Capivi</i> ,	{ Rolled in powdered sugar, in the dose of, from four drops to six.
— <i>Canada</i> ,	
* Venice turpentine,	{ In the dose of, from one dram to a dram and half.

ANIMALS.

Pearls,	{ In powder, and in substance, in the dose of, from one scruple to two scruples.
* Burnt ivory,	
* Prepared hartshorn,	
* Calcined egg-shells,	
* Cuttle fish-bone,	

MINERALS.

* <i>Lapis Hæmatites</i> ,	{ In substance, re- duced to powder, from one scruple to two.
* <i>Bole Armoniac</i> ,	
* Briançon chalk,	
* <i>Terra sigillata</i> ,	
* Amber,	
* Granate,	
* Alum,	
* Coral ¹ ,	

¹ After many uncertainties and variations, it is at last known, that coral is the production of several small insects, or *polypusses*, which lie hid in the bark; and sometimes show themselves, by opening, like little flowers: which has made them be taken for the flowers of coral; and occasioned coral's being reckoned in the number of plants.

The opinion, which is received at present, is supported not only by the reality of the

polypusses, placed by millions in the bark of the coral; but, also, by the volatile alkaline salt, which the coral, drawn fresh from the sea, yields in distillation; and by the putrid scent of fish, that the bark contracts, when it is suffered to putrefy in water; which, as is evident, evinces the animal origin of coral. I have, however, continued to place the coral in the number of minerals, conformably to usage.

GALENICAL PREPARATIONS.

- * Water of plantain,
 - * ——— shepherds purse,
 - * ——— roses,
 - * ——— yarrow,
 - horsetail,
 - * ——— common knot-grafts,
 - tender leaves of oak,
 - frogs spawn,
- In the dose of one, two, or three ounces.

SYRUPS.

- * Syrup of roses,
 - * ——— myrtle-berries,
 - * ——— red nettles,
 - * ——— yarrow,
 - * ——— plantain,
 - * ——— dead nettle,
 - * ——— quinces,
 - * ——— coral,
- In the dose of an ounce ; or an ounce and half.

TROCHES.

- Troches of yellow amber,
 - Gordon,
 - *terra Japonica*,
- From half a scruple to a scruple.

CHEMICAL PREPARATIONS.

- * Saffron of Mars,
 - * Tincture of coral,
 - * ——— red roses,
 - * ——— *terra Japonica*,
 - * Rabel's water,
- From half a scruple, to a scruple.
- From one dram to two.
- By drops, *ad gradum aciditatem*. With

With these different drugs, chosen, and proportioned properly, ptisans may be discretionally made; and apozems, broths, juleps, and potions, composed; or opiates, bolusses, and troches. On which head, nothing more is requisite, than to consult what has been already said above, *Chapter IV.* It is often advantageous, without changing the view, or even fundamentally the medicine, to avoid giving the patient a disgust, by varying the form under which they are given.

II. In case of dilaceration of the veinous *appendices*, it is necessary, to insist first on the use of emollients and agglutinants; amongst which, those ought to be preferred, that are somewhat astringent and vulnerary. This is the class of these remedies ranged in their due order, and marked, as was before done, with an asterisk, to distinguish those which are most used.

VEGETABLES.

ROOTS.

- * Comfrey,
- * Water lily,
- * Yellow mallow,
- * Sorrel,
- * Strawberry,

} In decoction, in
the dose of from one
ounce, to an ounce
and half.

LEAVES.

- * Mullein,
- * St. John's wort,
- * Common cudweed,
- * Ladies mantle,
- * Sanicle,
- * Bugle,
- Lettuce,
- Purflain,
- * Avens,
- Bloody cranes bill,
- Scabious,

} In decoction, in the
dose of a handful, or a
handful and half.

R 3

SEEDS.

SEEDS.

- * Cold seeds,
- * Lettuce seed,
- Purslain seed,

In emulsion, from two
drams to six drams, of each
kind.
In decoction, with a dou-
ble proportion.

JUICES.

- * Gum tragacanth,
- Gum Arabic,
- * Labdanum,
- * Myrrh,

In the dose of ten
or twelve grains.

WOODS.

- * Mastic tree,

In decoction, with half an
ounce, well rasped, to a pint.

ANIMALS.

- * Ivory shavings,
- * Hartshorn shavings,

In decoction, in the pro-
portion of one, or two ounces
to a pint.
In substance, reduced to
powder, from a scruple to
two.

SYRUPS.

- * Of comfrey,
- pomegranates,
- forrel,
- lemons,
- verjuice,
- gooseberries,

From one to two
ounces.

With these drugs may be made, observing the same
precautions, ptifans, decoctions, apozems, broths,
juleps, and potions; or, if it be more liked, troches,
powders, bolusses, opiates, &c. It must, however, be
remarked,

remarked, that when the vulneraries, and agglutinants, alone, do not act with sufficient power, it is requisite to join to them, some astringents taken from the preceding class.

III. In the third case; that is to say, when it is suspected with relation to the *uterus*, that there are some remains of chloretic obstructions, which hinder the lactiferous vessels from emptying themselves; and, consequently, constrain the circulation of the blood, the aperitives proposed before, in *Chapter VIII*, on the same occasion of the *chlorosis*, must be brought into use. But care must be taken, to select those, which are most gentle; and to employ them only in moderate doses, joined even with some astringents; for fear, otherwise, of increasing the flooding, by the remedies themselves, which are given to cure it.

IV. But if there be signs, that indicate any complication of the causes of the disorder; which is not uncommon; that is to say, any relaxation, together with dilaceration; any dilaceration, together with obstruction; or, what is worse, relaxation, dilaceration, and obstruction, all together, at the same time, in the *uterus*; it is proper, in such cases, to combine, also, in proportion, the remedies peculiar to each particular cause; in order to be able to oppose them all directly; and by that means, to cure effectually the disorder, which could otherwise only be palliated.

V. In all the cases, of which we have been speaking,
1^o. all the exterior remedies proposed in the preceding article, as fomentations, cataplasms, injections, perfumes, &c. may be employed; and with the more dependance, because there is less reason to fear, the heat, they communicate to the *uterus*, may augment the flooding, by augmenting the velocity, and the quantity of the blood that passes thither.

2^o. Besides these remedies, there is another, which we have not mentioned: thinking it scarcely practicable in uterine haemorrhages; because it always imparts, whatever precautions may be taken, too much heat to the *uterus*. But it may be brought into use

with success in the dripping of the *uterus*. This remedy is fumigation; which may be performed in different manners. The most simple is vinegar: which may be thrown gradually on a hot shovel; or it may be made more compound by red roses, ballastines, myrtle-berries, mastic, amber, *labdanum*, &c. These drugs must be reduced to powder; and incorporated with gum tragacanth, dissolved in rose, or plantain water, to form them into troches: which are to be put on a hot shovel, to raise the fumes. Some authors recommend as a specific and approved remedy, the fumes of frogs dried in the shade: which are burnt on a hot shovel; or that of a mule's hoof, thrown on burning coals.

These fumigations are commonly received through the perforated chair: but as they cannot enter far by this means, it is more advantageous to use a funnel to introduce them. It is indeed true, that, in this case, the perforated chair must be high, the fire very gentle, and a considerable distance betwixt the fire, and the funnel, to prevent the heat of the fumes from doing any harm.

3°. As the dripping of the *uterus* is less dangerous and urgent, than the uterine haemorrhage; and lasts longer; somewhat must be relaxed in this case, with relation to the article of diet. Not only, therefore, jellies, either of hartshorn, or calf's foot, may be permitted; but even weak potages; boiled rice in broth; oatmeal; and flower in broth also; eggs boiled in the shell, or stewed with broth; &c; may be allowed. The eating flesh, only, should be wholly forbid for a long time; and in its place, a little fish broiled, or boiled in water, or stewed for a short time; and with very little salt; should be permitted. The patient should continue to drink proper piftans without wine; and take, every evening, a slight narcotic, if she find a difficulty in sleeping without the assistance of it.

* Michael Joannes Paschalius. an uterine discharge of blood
Methodi Curandi, Lib. I. Cap. 55. long standing.
who says he cured, by this means,

4°. The patient may be, also, less rigorously treated, with regard to the article of repose: but it is proper, nevertheless, to restrain them from much exercise; and to advise them urgently to keep in bed; or at least laid on a couch; without putting themselves into any agitation, or speaking much. As the effects of joy or grief are equally against them, it should be endeavoured, to keep them free from those passions; and they should be also forbid all use of coition.

By these different means, either the disorder will be diminished to such a degree, as to leave only a little lymphatic running, that is white, or of the colour of the washings of fish; that is to say, there will nothing remain but a *fluor albus*; on which the following chapter may be consulted; or even it may be intirely and radically cured; so that nothing more may remain to be done, but to prevent a return of it; which falls under the third case, that we are now going to explain.

THIRD CASE.

Method of preventing the return of floodings.

1°. It is proper to take care to keep off every thing, which may renew the flooding; and in order to this, to persist in making the patients observe a regular conduct; to oblige them to go to bed early; and to lie a long time in it; to exhort them to restrain their passions, and not relax on the article of lying separately from their husbands; and to forbid for a long time the use of flesh, more than once a day; and then only white meats boiled or roasted. With respect to wine, a little may be granted, if the stomach require it: but this liberty must not extend very far.

2°. To these precautions, which make the principal part of the prophylactic cure, must be joined the use of the medicines, that had the best success in overcoming the cause of the disorder: but as this cause must be very much weaken'd, supposing it not intirely destroyed;

destroyed ; these medicines should only be employed at long intervals, and in very moderate doses. Attention should, also, be given, to chuse those preferably, which are the most gentle.

3°. In the case, therefore, of the *inertia*, and relaxation of the veinous *appendices*, slight astringents should be given, in form of a ptisan, depurated juices, or bolusses, of which, by intervals, a long use should be made, till the ordinary course of the *menses* be perfectly restored, without the renewal of the flooding. Sometimes nothing succeeds better in this case, than a common use, in form of ptisan, of a slight decoction of the China root, alone ; or of that, and sarsaparilla.

4°. In the same manner, in the cases of dilaceration of the veinous *appendices*, the frequent use of emollients, and agglutinants, should be persisted in ; and, with this view, besides the remedies that have been already proposed, chicken broth, with the cold feeds, or broths of frogs, or snails, &c. should be given ; intermixing with them, from time to time, the use of vulneraries ; such as balsam of Capivi, or of Canada, mixt with the butter of the *cacao*, or *spermatozœti*.

5°. The use of gentle aperitives may, in like manner, be from time to time repeated, in cases of obstructions of the laetiferous vessels ; and as it is of consequence, that these aperitives should not be too powerful, bitter broths may be taken ; in which are dissolved, fifteen or twenty grains of chalybeated soluble tartar ; or from twenty to twenty-five grains of *terra foliata tartari*, or clarified whey ; in which some bitter plants have been infused ; or the same remedies may be added, in the same proportions.

6°. In every case, the ferruginous mineral waters agree equally well ; and they may be prescribed with success in the proper season. But those must be chosen, which are not purgative, or but in a small degree ; and contain only a moderate quantity of the particles of iron. Such are those of Forges ; by which,

as a specimen, the choice may be regulated. If there be none within reach, but such as are more purgative, or too much charged with the mineral substance, they may, nevertheless, be used, being diluted with a sufficient quantity of common water.

7°. The use of milk is suitable, also, to all the three cases: but with some difference. When it is in question to strengthen the vessels that are too much relaxed, the preference is due to goats milk; and, according to several authors, to that of sheep; provided the stomach can digest it. Asses milk should be employed, when it is proposed to sweeten the blood; to thin the milky humours; and to relax the lactiferous vessels of the *uterus*, too much closed, or half stopped up. That of cows may be ordered, diluted with a slight infusion of vulneraries, when it is wanted to consolidate the *cicatrices* which are too tender, and disposed to open again: but ass's milk may then be employed with the same success.

8°. Lastly, in all these different cases, use may be made of fumigations; taking care, that the fumes may not be too warm on their entering. As the only end of these fumes is to strengthen the elasticity of the venous *appendices*, together with that of the inferior membrane of the *uterus*, troches composed of frankincense, mastic, *labdanum*, amber, red roses, balaustines, &c; or at least two or three of these drugs, reduced to powder, tempered with plantain water, in which a little gum tragacanth is dissolved, and worked to the proper form; may be employed.

Necessary precautions in the cure of floodings.

I. As the intention of cure, which urges most in copious floodings, is to moderate the discharge, the remedies, on which most stress ought to be laid; and which should be regarded as the most efficacious; are bleeding; astringent ptifans, with the roots of bistort, and comfrey, the rind of green oranges, &c; the decoctions of crude *terra Japonica*; the depurated

juices of astringent plants, as the white nettle, yarrow, and plantain; and bolusses with the astringent powders; and particularly with dragons blood, rock alum, and brown sugar, in the proportion of fifteen grains of each, for every dose, which must be repeated from four hours to four hours.

II. The same remedies are proper, also, in the too copious discharge of the *menfes*: but as the danger is not generally so great then, there is no occasion to hurry in the use of these remedies with the same briskness; nor to give them in such large doses.

III. As the danger is still less urgent in the dripping of the *uterus*, there is yet less reason, in that case, to urge too fast the use of those remedies. It is often prudent to wait the course of nature, in order to judge with accuracy of the state of the disorder, and to proportion the remedies to it.

IV. In general, if it be proper to check the copiousness of the flooding quickly, because it is never wholly void of danger, it is proper to be equally solicitous not to stop them too soon. By such a conduct, the patient would be thrown into violent hysterical suffocations; and what is worse, the hazard even of having an inflammation of the *uterus*, or a *schirrus* brought on; which ought to furnish objections against the too great use of astringents; and deter a prudent physician from trusting them too far.

V. It may be judged from thence, that the patients feet should not be put into cold water; nor astringent pessaries, nor injections employed; but in very urgent cases; and even then, not without great circumspection; since too quick an effect might be more to be dreaded than the disease itself.

VI. The same judgment may be made on Rabel's water, added to ptifans, or potions: although, to say the truth, it is rare, that the moderate use of this water ever operates by a too quick suppression; or produces any dangerous change.

VII. It is already intimated, that nothing should be applied on the belly, yet less introduced into the *uterus*,

uterus, that may be too hot: because the heat attracts the blood to the *uterus*, for the reasons which have been mentioned: but it should be avoided, with the same care, to apply any thing cold, which may fix the blood there; and cause a dangerous repletion in the part.

VIII. Some moderns have had the rashness to recommend, in floodings, preparations of lead; such as the sugar, the magistry, and the *liquor Saturni*; not only in injections of the *uterus*, which may perhaps be tolerated in small doses; but even in the remedies that are to be taken internally; which must be ever condemned; and never imitated. The judgment given by Dr. Boerhave, a very able physician, and chemist, and consequently a more weighty authority, in this point, should be adopted: he says, ¹ *Saccharum Saturni, internè commendatur pro remedio salubri contra hæmoptoēn, hæmorrhagiam, mictum sanguinis, gonorrhæas, fluores albos, &c similia, tūm etiam pro mitificante remedio contro acria sanguinis; sed nunquam ausus fui facere periculum, quia felices successus haud vidi ab aliis adhibentibus natos, & quoniam novi vix dolofius haberet, tetrunque magis venenum, quam ab hoc plumbō statim in cerussam reddituro, ac acidum ab occurrente quaunque re inde absorbetur: hinc lethale, nec facile postea sanandum venenum corpori inducitur.*

IX. The most embarrassing article in the cure of floodings is what regards the use of purgatives, and emetics. These remedies are recommended by ² all practitioners, and they are sometimes followed with an amazing success. But unhappily, on one hand, this success is never certain; and, on the other, it is almost always certain, that the actual operation of these remedies will increase the disease, without there being any means by which it may be foreseen, to what degree it may be. I am not surprized, there should be some difficulty in determining, in these circum-

¹ *Chimie, Tom. II. Processu 173. Morbis Mulier. and after him by in Scholio.*

² *Hippocrates, Lib. 11. de ten on the diseases of women. stances,*

stances, *judicium difficile*. They are masterly strokes which a physician can only gain by long experience; and all the lights, I can give, are confined to the following reflections.

X. It is evident, 1°. That neither vomitings, nor purgings, can ever be proper in floodings, but when such floodings are promoted by some crudities in the stomach, or intestines. 2°. That these crudities can only promote the flooding in one of these three manners; either by occasioning the return of a fever fit, which accelerates the motion of the blood; by thickning the blood in regular periods, which augments the repletion in the *uterus*: or by contractions, or periodical gripes in the intestines; which draws the *uterus* itself into similar contractions. It results from thence, that purging, and vomiting, should never be employed in floodings, 1°. But when there is, in the stomach, or intestines, a mass of crudities, evinced by *nauseas*, gripes, looseness, and vomiting; or presumed from the knowledge of the bad regimen of the patient, before the present attack of the disorder. 2°. But when the flooding appears to be periodically renewed with a distinct fever fit; or with a shivering and periodical concentration of the pulse; or at least gripes, and cholics, which return regularly.

XI. It appears, therefore, already, that the use of cathartics, and emetics, is limited in floodings: but there is still a farther reason of limitations; which is, that prudence demands two other attendant circumstances, in order that these remedies may be employed with safety. *The one*, that the vessels should be sufficiently emptied by bleeding; in order to the being secure against the too great irruption, the operation of these medicines may occasion. *The other*, that there should not be in the *uterus*, either pain or actual tension; in order to be secure against the inflammation, there may be reason to apprehend in the opposite circumstances.

XII. In the concurrence even of all these circumstances, it should not be flatteringly presumed: that the use of purgatives, and emetics, has always the same degree of safety. In general, they may be employed, with more dependance on them, in simple drippings of the *uterus*, than in uterine hæmorrhages; because there is less to be feared from the irruption of blood into the vessels of the *uterus* in the dripping; which is principal, than in that which is symptomatic, as the patients, being less reduced in strength, are in a better state to support the irruption if any happen; and, in the floodings without solution of continuity in the vessels of the *uterus*, than in those where there is a solution; as the vessels of the *uterus*, when they are intire, resist better the irruption of blood.

XIII. When the question on the utility of purging, and vomiting, in floodings is decided: what remains to be done, is not very difficult. It is, always, right to prefer vomiting, so long as any crudities remain in the stomach; particularly if the patient vomit without much trouble. It is proper, on the contrary, to employ purges, after the crudities are passed into the intestines; and sometimes even before they have passed; when it is known, that a vomit cannot operate on the patient without exciting very great efforts.

XIV. Purgatives, that are gentle, but proportioned to the constitutions of the patient, should be chosen. The best method commonly, is to give the dose at several times, that it may work with the greater safety, and gentleness. With regard to emetics, it is always right to prefer *ipecacuana* in powder, in the dose of twenty, twenty-four, or thirty grains, to the tartar emetic, and other antimonial vomits: because the *ipecacuana* acts with less impetuosity; dissolves, and loosens, better the mucus of the stomach; and operates by stool, also, a little more than the tartar emetic.

Remedies recommended in floodings ; which may be used with success ; or, at least, without danger.

Although the class of astringents, and agglutinants, which we have enumerated, may afford a great number of different remedies, capable of effecting all the intentions of cure, it does not seem right, to suppress some others, of a particular nature, which may be employed with success ; or at least without danger. Such are :

I. Roch alum, proposed by Mr. Adrian Helvetius¹, as a specific for all haemorrhages ; and, consequently, for floodings in women. He melted two ounces of selected roch alum, in a silver spoon : put to it, when liquefied, half an ounce of powdered dragons blood : and, before the mass grew hard, formed it into pills of the size of a pea.

When the flooding was not very copious, he gave, from four hours to four hours, half a dram of these pills, in a spoonful of syrup of quinces : but he gave two scruples, and even a dram, in each dose ; when the disorder was urgent ; making the patient drink after it, some ptisan of dog grafts, or some infusion of maiden hair.

Mr. Helvetius boasts much of the efficacy of this medicine : which, indeed, commonly succeeds well enough ; and sometimes even over well, by causing a suppression, that is too quick, and of course subject to bad consequences. In general, the quantity of alum, the patients are made to swallow, gives great pains in the stomach ; and throws them into continual languors of that part. It moreover binds the belly likewise to such a degree, that it becomes unavoidable, in going to stool, whatever care may be taken by giving glysters, to make such efforts, as must promote the flooding.

At present Mr. Helvetius's remedy is out of use. It is now thought sufficient to give the patient, from four to four hours, when the disease urges ; or twice a

¹ *Traité des Pertes de Sang.* Paris, 1697. in-8°.

day, only, when it is slight; a bolus composed of rock alum, dragons blood, and brown sugar; all powdered and incorporated by some drops of a solution of gum tragacanth: and this method of administering alum is subject to fewer inconveniences.

II. The essence of Rabel, of which the preparation is prescribed in the *Pharmacopeia of Paris*. This remedy is one of the most safe and efficacious, that can be employed: besides the advantage of being able to regulate its action at discretion.

The most common manner of using it, is to pour fifty-six or fifty-seven drops into a quart, or two pounds of decoction, of the roots of comfrey, *ad gratam aciditatem*, to which is added, an ounce, or an ounce and half, of syrup of pomegranate, or gooseberries; or even of capillair; to make a kind of limonade, which is not disagreeable.

A glass of five or six ounces is given, from four hours to four hours, when the flooding is considerable. But, if it be moderate, the medicine is only given two or three times a day; or even not more than once, when the flooding is only a simple dripping.

This remedy is as efficacious, as the preceding, without disordering, or constipating the stomach. If Rabel's essence cannot be obtained, the dulcified spirit of vitriol may be substituted, with the same effect: by putting it, drop by drop, into the decoction of the roots of comfrey, *ad gratam aciditatem*: and by adding any syrup, that may be thought proper.

III. The expressed juice of the dung of an ass¹, or hog, well clarified; and given three times a day, in the dose of four drams each time, mixt with an equal quantity of syrup of coral, red roses, or myrtle-berries; and aromatised with a spoonful of orange flower water. There is sometimes added, to dilute it,

¹ Roleric. à Castro, *De Morb. Mulier. Lib. I. Cap. 5.* & alii passim. ² Johannes Schmidt. *Ephemerid. Medico-Physicar. Decur. I. ann. ix. & x. Observat. 56.*

an ounce of plantain water; or of some other such kind. Sometimes even a syrup is made of this juice, which is ordered in the dose of an ounce. This dung is employed, also, in cataplasms on the *hypogastrum*.

IV. The ¹ root of dropwort, ² the bark of the root of white mulberries, ³ eggshell calcined, ⁴ and the dried skin of a goose's foot, are all recommended as specifics, each in the dose of a dram, powdered very finely, and diluted in an ounce or two of any proper water; or of the expressed juice of some astringent plant.

V. The yolk of a fresh egg swallowed crude, with a spoonful of red wine, or distilled plantain water. As this remedy is very gentle, it may be given several days together, in the morning fasting; and it may be of service in the drippings of the *uterus*.

VI. Gum ⁵ Arabic, in the dose of a dram, dissolved in an ounce of plantain water; and taken, in the morning fasting, several days together. This remedy, in the same manner as the preceding, is of the class of agglutinants; and proper in drippings caused by any slight erosion in the *uterus*.

VII. The ⁶ flowers of the walnut-tree, gathered when they begin to fall of themselves, dried in the shade; reduced to powder; and given in the weight of a dram, in some spoonfuls of red wine; which should be repeated for some days.

VIII. The remedy boasted by ⁷ Forestus, as an admirable secret, which he had from an able practitioner of Boulogne, called Helideus, who had been his master.

¹ Mercatus, *De Morb. Mulier.*

Lib. I. Cap. 8.

² Idem, *Ibid.*

³ Riverius, *Cent. IV. Obs. 86.*

Raimundus Fortis, *in Consult.*

⁴ & *Respons. Medic.*

⁴ Joh. Hartmannus, *in Praxi Chymiatrica.*

Raim. Fortis, *ubi suprà.*

⁵ Mercatus, *ubi suprà.*

⁶ Soenander, *in Consil. Mai-*

cinal.

⁷ Observat. *Lib. XXVIII.*

Observat. 10. . . .

A turtle dove, moderately fat, must be procured : and after being pluckt, and drawn, it must be washed with red wine, and rose water, its belly filled with an ounce of mastic, grossly bruised ; and the skin then sowed close again. Let it be afterwards spitted ; and roasted ; during which, instead of butter, let it be basted with vinegar of roses. The fat, which runs from it, must be carefully saved ; and when the dove is well roasted, being put into a new earthen pot, well glazed, and with a cover luted carefully over, it must be set in an oven, till the bird be wholly dried ; and in that state it must be reduced to powder.

Forestus advises to give, several days together, a spoonful of this powder, in plantain water ; or in any astringent decoction : and to rub the patient on the loins, *pubis*, groins, &c. with the fat that is saved in the roasting. If this medicine were as efficacious as the author pretends, the virtues ought to be principally attributed to the mastic ; and the preparation would either add nothing to it, or but little.

IX. The following decoction, proposed by ¹ Septalius, as a certain remedy ; and as a secret a long time concealed.

The rinds of three four oranges, a little green, are taken, cut into thin slices, and boiled in seven pounds of water, to the consumption of two thirds. The decoction, which remains, is strained ; and eight, or nine ounces of it, is given to be drunk every morning as long as it lasts. Septalius intimates, that this decoction may be rendered more efficacious, by boiling in it, towards the end, a handful of mouse-ear ; and to a yet greater degree, by quenching in it, several times, a red-hot bar of iron. He adds, that this medicine is sovereign in the floodings of women ; unless when they proceed from any exulceration.

X. The kind of cataplasm, or topical application, that ² Solenander has commended as a remedy capable of stopping, even the first day of its use, the most pro-

¹ *Animadv. & Caut. Lib. VII.* ² *In Confil. Medic.*
Caut. 145.

fuse and obstinate floodings : and which has had the approbation of ¹ Riviere, ² Ettmuller, and many other ³ authors. This is the composition of it.

Take of the plaster of Paris reduced to powder, one pound; of gum Arabic torrified, and powdered in the same manner, ten drams; and five or six ounces of eggs well beaten, and reduced to a fluid state. Mix and temper the whole together, and spread it immediately on pledgets of cotton, or pieces of linnen: which must be applied, very near each other, on the navel, and the loins.

I do not take upon myself to vouch for all the efficacy, that has been attributed to this medicine: but as it is a remedy intirely external, of which the use appears to be wholly exempt from danger; and such as there may be occasion for, in uterine hæmorrhages, I thought it ought not to be omitted.

XI. I have seen employed, in excessive menses and floodings, the *calx* of tin, taken internally, in a little conserve of roses, in the form of a bolus, for some days, in the morning fasting; the dose being from ten to fifteen, and eighteen grains. The remedy does not harass the stomach as common astringents: because it has not the same stiptic quality; and, nevertheless, it is pretended, the action is more certain than that of astringents, without its ever being perceived, as they assure me, to produce any bad effect.

The same remedy is advised for hysterical vapours, and I reserve to myself the right of saying, in speaking of this disease, what I think of such a medicine, as well of all other preparations of tin, that are recommended.

Remedies recommended by some authors, but of little efficacy; and often even not safe.

I. Nothing is better authorized among the antients, than the application of large cupping-glasses under

¹ *Præcœs Medicæ, Lib. XV.* ³ *Timæus von Galdenklée,
Cap. 3.*

² *De Morb. Mulier. Cap. 1.* ⁴ *Lib. IV Cap. 9.*

the breasts. Hippocrates has said, in express terms ;
¹ *Mulieri si placet menstrua sistere, cucurbitulam quam magnam ad mammas appone :* and ² Galen has applauded what Hippocrates asserted on this article. Nevertheless, this remedy is at present wholly out of use. I am ignorant, whether or no, it was attended with any success ; but I am persuaded, that bleeding in the arm is much better.

II. ³ Forestus, ⁴ Mayerne, ⁵ and Hartman, recommend the use of human bones, calcined, according to Mayerne, to whiteness, diluted in the proportion of a dram, in a glass of red wine ; or of the depurated juice of plantain. Besides the repugnance there may be to the taking such a medicine, the ashes of human bones, calcined to this degree, appears to me to be more aperitive than astringent.

III. ⁶ Francis Feynes, an antient professor of the faculty of Montpelier, proposes to absorb tar in a sponge ; and to calcine it afterwards, in a pot, in order to powder it. He adds, that this powder, diluted in the proportion of twelve, or fifteen grains, in a sufficient quantity of the juice of plantain, cures floodings ; whether it be taken internally, in little doses ; or employed as an injection, into the *uterus*. But this powder is diuretic : which is sufficient to make it be regarded as an emmenagogue ; and, consequently, by no means suitable to the use for which it is proposed.

The same nearly may be said of the colophony, which ⁷ Solenander advises to give in floodings, in the dose of a dram, reduced to powder, and diluted with a glass of plantain juice. He assures us, that, at the fourth dose, the patient would be certainly cured. *Id fiat quater*, says he, & erit curata infallenter, *Deo dante.*

¹ Sect. V. Aphor. 50.

⁵ In Praxi Chymiatricâ.

² In Comment. in hunc Aphor.

⁶ Practic. Medicin. Lib. IV.

³ Observat. Lib. XXVIII. Ob- serv. 10.

⁷ Cap. 58.

⁷ In Consilii Medicinalibus.

⁴ Prax. Medic. Lib. III.

IV. Riviere¹, another professor of the faculty of Montpelier, asserts positively, that spikenard, reduced to powder very finely, and taken in any proper fluid in the weight of a dram, stops floodings; and it appears, by observation XXXII, cent. II. that he applied it to this use, by mixing it with other astringents. I know but few practitioners so intelligent as Riviere: but, nevertheless, I cannot avoid suspending my assent to his decision. The aromatic smell, and taste of spikenard, evince, that this remedy is attenuant, and aperitive; which are, moreover, the qualities that all authors ascribe to it: and some even add, that it is emmenagogue; and propose it for exciting the menses.

V. I cannot approve of the use of the *tinctura anti-phthisica*, of Ettmuller; which this author² proposes for floodings, in the doses of twelve, fifteen, and eighteen drops, in a suitable vehicle. The composition³ of this tincture is,

R. Sacchari Saturnini, & vitrioli Martis, aa 3j.

Spiritus vini rectificati, 3vij.

Repone in loco frigido, donec rubescat spiritus.

It suffices, that the sugar of lead enters into the composition of this medicine, to deter all physicians from ever employing it internally, by whatever suffrage it may be authorized. What has been already said above, page 253, on the use of preparations of lead, may be seen on this head.

VI. There is less danger in using the powder of frogs spawn of⁴ Crollius, which is going to be mentioned: but I question, whether it really be as efficacious as pretended.

R. Myrræ electæ & Thuris masculi, aa 3ij.

Croci triti, 3s.

Terantur & misceantur omnia.

¹ *Praxeos Medicæ, Lib. XV. Cap. 3.* ment. in Schrod. & in Morelli Method. Cap. de Tincturis.

² *De Morb. Mulier. Cap. 1.*

⁴ *In Basilicâ Chymicâ.*

³ Vid. Ettmullerum in Com-

Pulvis ex aquâ spermatis ranarum per saccum resolutâ imbibatur vigesies vel trigesies, ita tamen ut semper prius exsicetur

Tandem adde Camphoræ, 3ij.

Pulvis servetur ad usum, cuius dosis ad gr. ij. vel iii. in aquâ Artemisiæ vel in vebiculo quovis idoneo.

By the meer reading of this formula, it is easy to judge, that the frankincense, and the Oriental saffron, which are emmenagogues, and the camphor, which is a powerful attenuant, are but ill chosen to make a medicine designed to stop floodings. I believe, therefore, this medicine, not only to be of no use, but even hurtful ; and if it be not apparently so, it is because only moderate doses are given.

VII. A ¹ German physician boasts the powder of emeralds, taken internally in the dose of eight grains, as a remedy, which he has seen succeed in floodings that were desperate. I have seen the powder of turquoises proposed in the same case, in the dose of fifteen, or eighteen grains. But I mistrust too much the qualities of copper, which is believed to enter into the composition of emeralds ; and I have not sufficient faith in the virtue of ² calcined bones, which form the turquoises ; to reckon on the efficacy of these sorts of remedies.

VIII. I lay somewhat more stress on the *usnea* ³, or moss of a human skull, taken internally, in the dose of

¹ Daniel Crugerus, in *Ephemer. Curios. Natur. German. Dec. II. Ann. 5. Observ. 25.*

² Peter Borel, a physician at Castres, and member of the Academy of Sciences, was, as far as I know, the first, who has said, and proved ; which he did in 1684 ; that turquoises were petrified, and calcined bones. See *Antiquités de la Ville de Castres, Lib. II. Chap. 12.* And the *Description of the Cabinet of the Author*, at the end of the same book. M. de

Reaumur has proved the same since. See the *Memoirs of the Academy of Sciences, in the year 1715*, page 174.

³ In Arabia all sorts of moss is called *usnea*. See Matthiolus, *Commentaria in Dioscorid. Cap. 20.* and Dodonée, *Sirp. Histor. Pempt. 3. Lib. 5. Cap. 13.* But this word does not, at present, signify among us any but that kind of moss, which is sometimes found on the bones and skulls of men, that have con-

of a scruple: but I have not, however, near so good an opinion of it, as a German ¹ physician who proposed it as an infallible remedy in floodings, and who gave it a place in the composition of the following pills.

R *Usneæ pulverisatæ, & Eboris fossilis seu Coral-lorum, cum spermate ranarum recenter collecto præparatorum, àa 3j.*

Opii correcti, gr. j.

Cum syrupo idoneo f. Pilulæ parvæ foliato auro ob-ductæ, quæ alternis diebus cum emulsione aquâ ex seminibus quatuor frigidis cum aquâ sperma-tis ranarum prius recenter paratâ, circa cubitum sumantur.

The same physician proposes another powder with *usnea*, the dung of a horse, and the powder of frogs spawn, pulverized, and mixt in equal proportions; with which he directs locks of wool or cotton, dipt in a solution of gum tragacanth, to be sprinkled; and to be introduced in the form of pessaries: and this topical application may be of some use.

IX. I consider, as the effects of the superstition, and credulity which reign yet in medicine, the practices, which some physicians recommend ² of making women, who have floodings, touch a dead body; carry under their ³ arm-pits, or on the region of the heart, a dried toad; ⁴ swallow, in the yolk of an egg, five or six grains of their own blood, which they have discharged, after having dried it over the fire in an iron spoon ⁵; take nine turds of a large rat, after having silvered or gilt them in form of pills ⁶; put on a shirt

or

tinued a long time in water, the grave, or the sun, and become sufficiently softened, or capable of being penetrated by the dust, to be able to furnish nourishment for the moss.

¹ Martin. Bernhard. à Bernitz, in *Ephemer. Curios. Natur. Germ. Decur. I. Ann. 2. Observ. 53.*

² Vitus Riedlinus, *Lin. Medic. Ann. 5. Febr. Obs. 20.*

³ Daniel Crugerus, *ubi suprà. Ephem. Curios. Natur. Germ. Decur. I. Ann. vi. & vii. in Append. Tit. 2. Fascie. 2. Medi-cam. Cnoffelianorum.*

⁴ Joh. Hartman. in *Praxi Chymiatricâ.*

⁵ Raimundus Joh. Fortis, in *Consult. & Resp. Medicis.*

⁶ Ettinuller, *de Morbis Mulier. Cap. 1.*

Johannes-

or shift worn for a long time before by a man; ¹ bind their body with the *muscus terrestris repens* of Matthiolus, or *muscus terrestris clavatus* C. B. pen 300; or with the bruised leaves of the *helleborastum*, or of the true heliebore ³; &c. I fancy it may be proper to add the making them swallow, in the yolk of an egg, or a glas of wine, a dram of crimson silk cut small; for although the dye of crimson silk, particularly if it be produced by the kermes, may have some effect in this last case; and that in the three or four first, the horror that is caused by touching a dead man, or carrying about them a toad, or swallowing their own blood, or the dung of a rat, may diminish the copiousness of the flooding, by lessening the motion of the blood; yet I can scarcely persuade myself, that they ever saw any real and very permanent effect from the use of these kinds of practices.

C H A P. X.

Of the fluor albus.

§. I. DESCRIPTION AND DIFFERENCES.

BESIDES the flooding of blood, of which we have spoken, women are subject to another kind of discharge of an humour, that is milky, white, or purely lymphous. This discharge is sometimes copious, and sometimes moderate: sometimes continual,

Johannes-Frederic Helvetius, in *Diribitorio Medico*, pag. 117. *Ephem. Curios. Natur. Germ.*
Decur. I. Ann. 2. Obs. 52.
 This author carries his credulity so far as to believe, that the *menses* are suppress'd by this practice. *Sed metuendum*, says he, *ne exinde in tantum supprimantur menses, ut numquam amplius in posterum fluant.* ² *Renealmus, Observ. 21.*
³ Johann. Hartman, in *Praxi Chymiatricâ.* *Ettmuller, de Morbis Mulierum, Cap. 1.*
⁴ *Ephem. Curios. Germ.*
Decur. III. Ann. IX. & X.
Observ. 235.

¹ Martin. Bernhard. à Bernitz.

and

and sometimes liable to intermissions. It is called in Latin, *fluxus muliebris*, or *fluor albus*: and in English vulgarly whites; or frequently a weakness.

This kind of discharge is rare in girls: but there are instances of it, especially in those who have the *chlorosis* a long time. It is more common in women, who have been several times delivered; who have suffered hard labours; or who have had miscarriages. Moreover, it is common in old women who have bad health: or who give into an improper regimen.

This disease may happen equally either with, or without a suppression of the *menses*: and it may be, in each of the two cases, either constant, or subject to intermissions.

The *fluor albus* that is intermittent, and happens without any suppression, begins commonly some days before the eruption of the *menses*; increases in proportion as the eruption approaches; continues certainly as long as the *menses* flow, though the discharge of them prevents it from being distinguishable; reappears when the discharge of the *menses* ceases, as copiously as when they began; continues yet for some days; and finishes its period at last in ten, twelve, fifteen, or eighteen days, more or less in different subjects, to return again at the stated time in due order.

The greatest part of the discharges of the *fluor albus*, which are constant, increase at the approach of the *menses*, in the women, in whom they have not ceased; continue according to the appearances in this state, as long as the *menses* last, though it cannot be distinguished; and support themselves nearly on the same footing, yet some days after the *menses* are ceased. But at last they diminish gradually, in proportion as they recede from the time of the *menses*, without ever ceasing, intirely; and begin to augment anew in the same order, in proportion as they approach to the time of the *menses*.

When the *fluor albus* is intermittent; and there is a suppression of the *menses*, the returns generally follow regularly the period of the *menses*, of which they seem

seem to hold the place ; and the duration, even of these returns, agrees with that of the *menses*, although they are commonly somewhat longer.

Moreover, in suppressions of the *menses*, the *fluor albus*, however constant it may be, is almost always subject to variations, and augmentations ; of which the period and duration answer at some times to those of the *menses*, which are wanting : but of which, nevertheless, the returns do not keep at other times any periodical order : as is observed, also, sometimes, in like manner, in the returns of the intermittent *fluor albus*, that happen in the suppressions of the *menses*.

These are all so many different kinds of *fluor albus* ; some with *suppressions* of the *menses* ; and others without *suppressions* : some *constant* ; and others subject to *intermissions* : some intermittent, with *periodical returns* ; and others intermittent, without any *regularity in the returns*. But this is not all, many other differences must yet be distinguished in this disease ; of which some are taken from the nature, others from the colour, and others yet from the quality of the humour discharged.

1°. *From the nature of the humour* : for according as this humour is serous, clear, and purely lymphous ; or white, thick or milky, the *fluor albus* is distinguished into *lymphous*, and *milky*. This last kind includes two others, which, however, scarcely differ in any thing but in degree : the one when the humour resembles milk, in whiteness, consistence and opacity : the other, when it is like whey, badly clarified ; that is to say, clear, less white, and more transparent, than in the first case : the last, in short, is, when it is transparent, mucilaginous, and thick, as water gruel.

2°. *Of the colour of the humour* ; which constitutes different kinds of *fluor albus*, according as the humour is white ; brown ; grey ; yellow ; green ; or reddish, as water in which flesh is washed.

3°. *From the quality of the humour* ; according to which, three kinds of *fluor albus* are distinguished : one, which is without smell, and acrimony : another, which

which is acrid, and corrosive: and a third, which has a strong and sometimes fœtid smell.

§. II. CAUSES.

The difference we have remarked in the nature of the humour, is sufficient to constitute two kinds of *fluor albus*, totally different from each other. The *MILKY fluor albus*; and the *LYMPHOUS fluor albus*. In the *MILKY fluor albus*, the milky juice, which is separated in the lactiferous vessels of the *uterus*, is to be distinguished: and in the *lymphous fluor albus*, the common pure lymph, such as circulates in the lymphatic veins of the *uterus*: from whence it is easy to conclude: 1°. That the milky *fluor albus* proceeds from the milky juice of the *uterus*: which, instead of being collected in its vessels, in order to be discharged only in the time of the eruption of the *menses*, escapes drop by drop into the cavity of the *uterus*; and flows from thence in proportion. 2°. That the lymphous *fluor albus* proceeds from the simple lymph, which escapes from its proper vessels, passes into the *uterus*, and runs out of it again, in proportion as it passes in. These are, therefore, two diseases, which are really distinct; although they are too often confounded: and they should consequently be treated of separately.

Causes of the milky fluor albus.

The milky juice, that is separated in the lactiferous vessels of the *uterus*; and should be accumulated there for a whole month, in order to procure the eruption of the *menses*; and which should, in its natural state, be discharged only during the time of this eruption: and, by this regulated order, serve to maintain their due period, as has been above explained in *Chapter I.* can flow out drop by drop from its own vessels, and produce, by that means, the milky *fluor albus*, only from one of these three causes: 1°. Because it is too copious, and cannot be contained in its own vessels, of which it, therefore, forces the orifices: 2°. Because

it is too fluid, and steals a passage through the orifices of its vessels, though duly closed : 3°. Because the orifices of its vessels are too open, or too easy to be opened ; and suffer it to escape too readily. But let us examine these three causes particularly.

I. The milky juice is too copious in the vessels of the *uterus*, and to such a degree, as to force their orifices, from the want of room in them to contain it, in the following cases, where it is found the chyle abounds too much in the blood.

1°. In the women who eat much ; and who feed on very succulent food, which produces a great quantity of chyle.

2°. In women, who use little exercise ; and who lead an indolent and sedentary life, which dissipates little of the chyle.

3°. In lying-in women, who have checked their milk ; and in those who, having given suck, leave off too early : which occasions, that the chyle, before converted into the milk, is then intitely turned into the milky juice of the *uterus*.

In the *fluor albus*, that depends on the *first* order of the causes, the humour which flows is white, thick, and truly milky : because it is true milk, that is only faulty in its copiousness.

II. The milky juice is too fluid, and even so as to steal a passage through the orifices of its vessels, though duly closed, in the following cases, where the blood which supplies it is itself too serous ; as,

1°. In women of a viscid and phlegmatic habit of body, or accustomed to drink much water.

2°. In women whose blood is dissolved by a slow fever, or by some other languishing disorder.

3°. In the women, who have liquefied their blood by the use of aperitive remedies, or attenuants, too strong, and too long continued.

In the *fluor albus*, that comes from the *second* order of causes, the humour, which flows, is clear, and mucilaginous, like water-gruel : because the milky juice is diluted with too much *serum*.

III. The orifices of the lactiferous vessels of the *uterus* are too open, or too easy to be opened, and consequently suffer the milky juice they contain to escape too readily, in the following cases :

1°. In women of a constitution naturally weak, and delicate ; in whom all the vessels, and consequently those of the *uterus*, are, by the faultiness of the conformation itself, too lax, too thin, and too open, or too easy to be opened.

2°. In women, in whom the lactiferous vessels of the *uterus*, and consequently their orifices, are too much softned by the milky juice itself, which is too serous, by the effect of different causes, that have been enumerated above.

3°. In women, in whom the interior coat of the *uterus*, which serves to cover, and contract the orifices of the lactiferous vessels, is relaxed, or weakned by frequent or hard labours ; or by several miscarriages.

4°. In the women, in whom the *uterus* is too often thrown into a state of contraction, by lascivious ticklings, or by the excess of prostitution ; which, by repeating too often, the pressure of the lactiferous vessels of the *uterus* forces the orifices, as at length relaxes them.

In the *fluor albus*, produced by the third order of causes, the humour generally keeps a middle state betwixt that of the milky *fluor albus*, and that of the mucilaginous. It is less thick, white, and milky, than in the milky *fluor albus* ; but more so than in the mucilaginous ; or, in other words, it is like milk diluted with much water ; or, if you will, whey badly clarified.

Hitherto nothing has been said, but of the simple milky *fluor albus*, which depends only on one single cause ; either the copiousness, or the thinness of the milky juice ; or the *inertia* of the vessels designed to contain it : and this is the first class of the *fluor albus* of this kind.

But it may be easily judged, that there must be a kind of milky *fluor albus*, more compound, which depends

depends on two or three causes at the same time; that is to say, on the copiousness and on the thinness of the milky juice: and on the *inertia* of the orifices of the vessels which contain it: or, in short, on the *inertia* of the orifices of these vessels; and on the copiousness of the juice: and this is the *second class* of the *fluor albus* of this kind.

It may even happen, and it often does, that the milky *fluor albus* proceeds from these three causes, combined: from the copiousness of the milky juice, its thinness, and the *inertia* of the orifices of the vessels: and this is then the *third class* of this kind of *fluor albus*.

It is not necessary to dwell on the reasons of the different combinations of the causes of the milky *fluor albus*, which may give rise to the compound kinds of the second and third classes. It suffices to take into consideration the different causes of the simple *fluor albus* of the first class, in order to judge what those are, which have the most affinity with each; and which may most easily produce, by their concurrence, these particular combinations.

Causes of the lymphous fluor albus.

The lymph that circulates in the lymphatic vessels, with which the surface of the internal coat of the *uterus* is supplied, cannot be evacuated into the cavity of the *uterus*, and give rise to the lymphatic *fluor albus*, but from one of these two causes. 1°. Either because it is obstructed in its vessels; and forced to exude through their coats, after having dilated them; and in this case, the *uterus* is in the state of an *ædema*: 2°. Or because the continuity of its coats is broken in some places; and these divisions give passage for it to escape: and, in this case, the *uterus* is in a state of exulceration. But let us examine these two causes more minutely.

I. The lymph is obstructed in its vessels, and found to exude through the pores of their coats, and run into the cavity of the womb, from three causes.

1°. When

1°. When there is a considerable *descensus* of the *uterus*; which, by elongating, doubling back, and dragging or compressing the lymphatic vessels, obstructs, or retards the course of the lymph.

2°. When there are obstructions, tubercles, *schorrusses*, or cancers in the body itself of the *uterus*; which compress there the lymphatic vessels; and obstruct the circulation of the lymph.

3°. When there are repletions, tumours, or indurations, in the lymphatic glands, to which the lymphatic vessels lead, that return from the *uterus*: as the glands of the *pelvis*, or of the bifurcation of the *iliacs*: which hinders the lymph from passing forward, and obliges it to stagnate in its capillary vessels.

The obstacles, mentioned in the two last articles, may come either from an inspissation of the blood, and particularly of the lymph, produced by common causes; or, what is more frequent, from an inspissation of the blood, or of the lymph, produced by some vicious levan, either venereal, scorbutic, scrophulous, or cancerous: and from thence it results, that this kind of *fluor albus* accompanies almost always these diseases, when they are of long standing.

II. The continuity of the lymphatic vessels is broken in the *uterus*; and the divisions of their coats give rise to the evacuation of the lymph in these two cases,

1°. When the lymphatic vessels, in consequence of being too full of lymph, that is obstructed there, burst of themselves in some places: which is the general consequence of the repletion of these vessels, when too great, or too long continued.

2°. When there is any place in the interior coat of the *uterus* torn, excoriated, divided, or eroded: which cannot happen, without destroying the continuity of the lymphatic vessels, that are distributed there.

The causes of these solutions in the lymphatic vessels of the *uterus* are the same with those of that of the blood-vessels, which have been amply spoken of in the preceding Chapter; or, at least, they only differ

in the degree of power. As instead of its being necessary, that the action of these causes should be considerably great, when it is to be extended to the blood-vessels, it may and must be supposed much more weak, when it is confined to the lymphatic vessels alone, which are greatly more easy to be divided, or exuded.

What has been said of the combinations of the three several orders of the milky *fluor albus* must be extended, in the same manner, to the two orders of the lymphatic.

1°. This kind of *fluor albus* may be simple, and depend only on one cause: either on the exudation of the lymph; or on its flowing out.

2°. This kind of *fluor albus* may, also, be compound, and depend on two causes at the same time: on the exudation, and the flowing out of the lymph: and this combination must be frequent, considering the affinity of the causes.

One other case must be added, which may, and undoubtedly often does happen, although it be difficult to be certain of it: which is, that the milky *fluor albus* is sometimes conjoined with the lymphatic: in which case, this combination gives rise to a kind, which is partly milky, and partly lymphatic; or, if the expression be thought more proper, lymphatico-milky.

§. III. Explanation of the differences mentioned in the description of the *fluor albus*.

First difference. The *fluor albus* is either attended with a suppression of the *menses*, or happens without any.

1°. There is a suppression of the *menses*, when these three circumstances come together. When the *fluor albus* is milky: when it is of the first, and second order: and when the discharge is copious: because then the lactiferous vessels empty themselves as fast as they fill; and, consequently, can never compress the

neighbouring veins, so as to turn the blood into the venous appendices, in the manner requisite for menstruation. The suppression of the *menses* happens also, at last, in the lymphatic *fluor albus*, when it continues a long time, has been very copious, and has exhausted the patient: which is a state directly opposite to that of the *plethora*, necessary for the eruption of the *menses*. But, in both these cases, the total suppression does not happen till after the *menses* have past through several successive degrees of diminution.

2°. There is no suppression, when the *fluor albus* is milky, and of the first order; or when it is lymphatic and recent: because, in the first case, the lactiferous vessels do not suffer any discharge, but of the redundant part; and, consequently, remain sufficiently full to excite the *menses*. And in the second: they are not made sufficiently empty, to cause a suppression of them. Nevertheless, even in this case, when the disorder is protracted, the discharge of the *menses* is affected: and, after having been diminished gradually, ceases at last intirely.

Second difference. The *fluor albus* is either constant; or subject to intermissions.

1°. The milky *fluor albus* of the second and third orders, is generally constant, especially when the thinness of the milky juice, or the dilatation of the orifices of the vessels destined to contain it, are considerable: because, that then the juice must continually flow out. The lymphatic *fluor albus* is, likewise, almost always constant: because the lymph must run out continually, if it be supposed, the lymphatic vessels are forced, or torn.

2°. The milky *fluor albus* of the first order, is, on the contrary, almost always intermittent: because, in that case, the vessels only suffer the milky juice to be discharged when they are too full. The milky *fluor albus* of the second, and the third order, is, in the same manner, intermittent, as often as the thinness of the milk, or the dilatation of the orifices of the vessels which contain it, are only in such moderate degree, as

not

not to cause the milky juice to open a passage, and be discharged, till after being accumulated in a certain quantity, and, consequently, during a certain time. From hence it is easy to judge, that the *fluor albus*, which is intermittent, may become constant; and sometimes those, which are constant, become intermittent.

Third difference. The discharge of the *fluor albus* is either variable, and subject to augmentations: or uniform, and without augmentations.

1°. The milky *fluor albus*, which is constant, is always subject to augmentations, whenever the discharge does not exhaust all the milky juice, which passes into the vessels of the *uterus*: because what remains, must gradually form a collection, that is discharged by intervals, when it has risen to a certain degree. The lymphatic *fluor albus* is subject also to variations: which are, that it is diminished, when the lymph is derived from the vessels of the *uterus* by any other evacuation: and that it is augmented, when the lymph is determined elsewhere, by some fault in the regimen, or any violent exercise.

2°. The milky *fluor albus*, which is constant, is discharged uniformly, and without augmentation, whenever the milky juice flows out entirely, as it is separated, without any part of it ever remaining in the vessels. The lymphatic *fluor albus* maintains an uniform course in the same manner, when no variation occurs in the regimen, exercise, or evacuations; nor in the other non-natural causes.

Fourth difference. The augmentations of the constant *fluor albus* either observe a periodical order; or do not observe any.

1°. These augmentations always observe a periodical order, when they happen to the milky *fluor albus*: because then they depend on the collection of milky juice accumulated gradually in its vessels; and this collection is made according to the period of the menses.

2°. These augmentations do not observe any periodical order, when they happen in the lymphatic *fluor albus*: because they are only owing then to causes purely accidental. They do not observe any, even in the milky *fluor albus*, when the accidental causes are sufficiently strong to disturb the periodical order; which would otherwise prevail.

Fifth difference. The returns of the intermittent *fluor albus* are either periodical; or they are not so.

1°. The returns are periodical, whenever the intermittent *fluor albus* is of the milky kind: because these returns proceed then from, that the quantity of milky juice, which is accumulated in the vessels of the *uterus*, is sufficiently copious, to force them to open; and that, in the regular and periodical intervals, it must be accumulated every different time. In this case, therefore, unless some accidental cause disturbs the order, the *fluor albus*, after having been suspended, must re-appear some days before the eruption of the *menses*: because there is so much time required for the accumulation of the milky juice. It must augment from day to day, according to the time of the eruption: because the quantity of the milky juice goes on augmenting till that time. It must diminish afterwards gradually, in proportion as the milky vessels empty themselves, and in proportion as the orifices of the vessels contract. And at last, when these vessels are closed, it must cease intirely to return again in the same order, if no other cause interfere, that is capable of disturbing it.

2°. These returns are, on the contrary, irregular, when the *fluor albus* is lymphatic: because they depend then on the fortuitous concurrence of several accidental causes. *See difference the third.* Sometimes the same irregularity is observed even in the returns of the milky *fluor albus*, when the periodical order is perverted by some casual accident, as has been already mentioned.

Sixth difference. The *fluor albus* is of different colours: sometimes white like milk, whey, or water-gruel;

some-

times transparent like water: sometimes yellow; of the colour of a marigold; gold coloured; and light yellow: and sometimes green; brown; and reddish.

1°. It is white like milk, whey, or water-gruel, when they are milky of the first, second, and third orders; and that the natural colour of the milky juice is not changed.

2°. It is clear as water, when they are lymphatic; and that the lymph is pure, and without mixture.

3°. It is yellow, of different shades, when the natural colour of the milky juice, or of the lymph, is altered by the mixture of bilious parts, more or less in quantity; or more or less yellow: or by the mixture of some drops of blood, more or less in quantity, or more or less intimately mixed. The first cause has no need of any proof. The second may be proved by the instances of the spittle, which is coughed up, in the peripneumony, of which the yellow and saffron colour is less owing to the mixture of bile, than to some drops of blood; which are intimately blended with it.

4°. It is green, when the bile, which is mixt with it, is of a dark green colour; or that purulent parts, with which it is charged, communicate their own hue to it.

5°. It is red, like the washings of flesh; and sometimes even of the colour of roses; according as the quantity of blood, which escapes from the vessels, and mixes with it, is more or less great; and as the two substances are mixt more or less intimately with each other.

Seventh difference. Sometimes the *flor albus* is without smell, and acrimony; sometimes it is acrid and corrosive; and sometimes it is of a strong, and even fœtid smell.

1°. It is without acrimony, when the milky humour and the lymph are pure, and without any mixture either of bile or *pus*; when these humours are furnished by a sweet blood; and when they do not stagnate in the *uterus*.

2°. It is, on the contrary, acrid and corrosive, in the three opposite cases: when these humours are changed by some mixture of bile, or of *pus*; when they come from an acrid and saline blood; or when they are too long retained in the *uterus*, where they heat, and are corrupted.

3°. It has a smell, and often even such as is *fœtid*, in the same circumstances.

§. IV. SYMPTOMS.

I. The discharge of the *fluor albus* diminishes the quantity of blood, in proportion as it is more copious, more constant, and of longer standing. From whence tabidness and paleness proceed, always in proportion to the greatness, and the length of the disorder.

II. In proportion as the quantity of blood is diminished, the fibres of the muscles are relaxed, for want of being stretched by the blood-vessels, which supply them: and, at the same time, the animal spirits flow there in less quantity; because fewer are separated in the brain. From whence proceeds the relaxation of the muscles; and, consequently, the lowering, and exhausting of the strength.

III. The diminution of the volume of the blood, causes the diminution of the quantity of *saliva*, that is separated in the glands of the mouth, which weakens the action of it: and the diminution of the influx of the animal spirits, causes the *atonia* of the nervous *papillæ* of the tongue, which weakens the sensibility of it: from whence comes the want of appetite, and disgust to food.

IV. For the same reasons, the lymph of the stomach must be then separated in less quantity: because the volume of the blood is less. The fibres of the stomach must, at the same time, be in a state of *inertia*; because the spirits do not flow thither in sufficient quantity. From whence it proceeds, that the digestion of the food is slow and imperfect.

V. The discharge of the *fluor albus* carries off from the blood a part of the *chyle* and the lymph, which has

has already had time to become perfect: and the *prime viae* only furnish a chyle to replace it, that is ill prepared, and often even too much abounding in serum. From whence proceeds *cachexy*.

VI. The contractions of the heart are weak in the *fluor albus*, for the same reasons, which cause the weakness of the contractions of the other muscles. See N° 2. The blood will be then only propelled weakly in the capillary extremities of the arteries; and the humours more weakly yet in the secretory ducts of the different strainers which take their rise from the extremities of the capillary arteries. But these humours, which are then formed of a chyle ill digested, are more thick than common; and they must therefore, by the assemblage of these two causes, stagnate, be obstructed, and grow thick in their own strainers. From whence comes the repletion, and the obstructions of the several *viscera*, and even of the several lymphatic glands.

VII. The repletions, and the obstructions of the *viscera*, when they impede the blood to a certain degree, turn the course of it; and, in the same circumstances, the repletions and obstructions of the lymphatic glands stop the course of the lymph. By the first of these two causes, the lymphous *serum* of the blood, obstructed in its vessels, must pass more abundantly into the lymphatic veins, which take their rise from them. By the second, the lymphous *serum*, which has passed into these veins, returns more difficultly. And by the concurrence of both, the lymphous *serum* of the blood must stagnate, and be accumulated in the different parts of the body, according to the different postures: in the inferior extremities, when the patients are a long time standing or seated; and in the face, the eyelids, and around the eyes, when they are laid down.

VIII. The bad chyle, which the *prime viae* furnish constantly to the blood; and the different humours, which the obstructions of the *viscera* detain continually in it; must gradually change the natural con-

dition of it; and communicate to it at last a vicious acrimony. From whence it proceeds, that the *cachexy*, which was only serous at first in the *fluor albus*, becomes in time acrid and *muriatic*.

IX. On this account the *fluor albus*, of whatever nature it may have been at first, becomes likewise almost always acrid and corrosive; and causes, at last, choppings, or divisions of the exterior membrane in the *vagina*; and more particularly in the *vulva*. From whence the itchings, smartings, excoriations, and ulcers, which happen in those parts.

X. From the same reasons, the *fluor albus*, the least capable of irritating in the beginning, injures, at length, the internal surface of the *uterus*; and brings on a *phlogosis*, more or less great, and more or less painful. Whence arises the tension and pain of the *uterus*; and the pains of the loins, reins, groins, *pubis*, &c. according to the places of the *uterus*, which are the most affected.

XI. The accidents mentioned in N° IX and X, are as much greater, and happen as much oftener, as the *fluor albus* is more acrid, and more corrosive in its nature; as the habit of the patients is more bilious; and as the regimen, which they observe, is more faulty.

XII. In these circumstances, the depravity, which the blood contracts daily; the purulent nature of the humour with which the *uterus* is moistned; and of which some parts enter into the blood; the almost continual pains of the *uterus*; and the bad chyle which comes from the *prime viae*; must at length excite a slow fever, subject to *paroxysms*; moderate in the beginning, but augmenting, gradually, and thence conducing to aggravate the disorder, more and more.

XIII. The same mechanism, which contracts and closes the bladder, when the patients make efforts to void the urine, contracts and closes the *uterus* at the same time. The milky or lymphatic humour, therefore, which stagnates in the *uterus*, must run out of it

at the same time as the urine runs from the bladder; and a commixture must be made of them in the *vulva*. From thence it comes, that in women, who have the *fluor albus*, the urine is thick, turbid, and charged with streaks or flakes in a visible manner, in proportion as the *fluor albus* is itself more copious, milky, or purulent.

XIV. The women, subject to the *fluor albus*, are almost always barren: or, if they conceive, which is rare, they either miscarry, or, at best, are only delivered of children, that are weak, languishing, and unsound. But as it is necessary, in order to the explanation of these facts, to understand the circumstances necessary for conception, uterogestation, and the nourishment of the *fetus*, the speaking of it must be deferred to *Book III*; where what regard these functions, will be treated of particularly.

XV. For the same reason, must be deferred to *Book II*; where the ulceration, dropsy, and *descensus* of the *uterus*, will be treated of, the explanation of the causes which occasion, that the *fluor albus* of long standing brings on so often these kinds of disorders.

§. V. DIAGNOSTIC.

Diagnostic of the disorder. The women consider the *fluor albus*, as a disease of which they are ashamed; on which account, they are loth to confess they have it, and therefore, sometimes, carry the concealment so far, as not to ask advice, but in the last extremity. They often, moreover, avoid revealing the circumstances, which might serve to give a clearer light into the nature, kind, and cause of the disorder.

It is not, therefore, without difficulty, that a certain knowledge is attained of their having the *fluor albus*; when, in consequence of interrogating them, the confession is extorted of their having a white or serous discharge, considerably copious; without burning, heat, or pain in the parts; not attended with any heat of urine; such as does not prevent their having commerce

commerce with their husbands without pain; augmenting towards the time of the *menses*, and diminishing in proportion to the distance from them; sometimes ceasing, and returning periodically or irregularly; and even when constant, generally subject to variations, more or less great, and more or less irregular.

Nevertheless, all these criterions do not hinder the often confounding with the discharge of the *fluor albus*, two other discharges, which come from the same parts: to wit, the discharge of an ulcer of the *uterus*, and the discharge of a slight venereal infection, or a constant and virulent *gonorrhœa*: and from these it is most material to distinguish the *fluor albus*.

I. There are means of distinguishing the *fluor albus* from the purulent discharge of the *uterus*, in two cases: the one, when the *fluor albus* is recent: the other, when it is of long standing.

The diagnostic is easy in the first case; that is to say, when the *fluor albus* is recent.

1°. Because, in the recent *fluor albus*, the *uterus* affords no signs of *pus*: whereas there is the appearance of *pus* in the discharge of an ulcer.

2°. Because, in the recent *fluor albus*, the matter is devoid of smell, and acrimony; or, at least, has but a small proportion of either: whereas, in the purulent discharge of the *uterus*, it is always very acrid, and foetid.

3°. Because, in the recent *fluor albus*, there is neither pain, nor heat, in the *uterus*; or, at most, only such as is slight: whereas, the pain is acute, and the heat great, when the discharge is from an ulcer.

4°. Because, in the recent *fluor albus*, there is no fever: whereas, on the contrary, there is always a slow fever in the purulent running of the ulcer of the *uterus*.

5°. Because the recent *fluor albus* is not preceded by any sign of inflammation, abscess, or ulcer in the *uterus*:

whereas, the purulent discharge of an ulcer is always preceded by them.

In the *second case*; that is to say, when the *fluor albus* is of long standing; the diagnostic must be founded on the same signs: but it is much more difficult; because it frequently happens, that the *fluor albus*, of long standing, is attended with a slow fever; and even with considerable pain and heat in the *uterus*: and that the humour is not only foetid, and acrid, but even purulent; or, at least, of a nature, which approaches greatly to purulence: that is to say, it often happens, that the *fluor albus*, of long standing, unites the greatest part of the signs, which have been mentioned as proper to purulent discharges. But it is not, however, necessary in this case, to take the trouble of distinguishing this sort of *fluor albus* from that kind of discharge: because it is known by experience, that the *fluor albus*, of long standing, becomes, at length, almost always purulent, in caco-chymic persons; though it does not always become so in the same degree, or in the same space of time.

II. There is, likewise, the same means of distinguishing the *fluor albus* from a venereal *gonorrhœa*, in three cases: when the *gonorrhœa* is recent; when it is of long standing, and has degenerated into a constant gleet; and when there is a complication of it with the *fluor albus*; whether the *gonorrhœa* come after the *fluor albus*, or the *fluor albus* after the *gonorrhœa*.

In the *first case*; that is to say, while the *gonorrhœa* is recent, and consequently inflammatory; the diagnostic is sufficiently easy.

1°. On account, that in the *fluor albus*, there is no heat of urine; which there is in the recent *gonorrhœa*.

2°. On account, that in the *fluor albus*, there is no inflammation either in the *vulva* or *vagina*; and that in the recent *gonorrhœa*, there is inflammation in one or other of these places, and often in both.

3°. On

3°. On account, that, in the *fluor albus*, the women suffer the approach of men without pain; whereas they cannot in the recent *gonorrhœa*.

4°. On account, that, in the *fluor albus*, there is almost always pain in the loins, more or less acute; whereas there is not the least in the recent *gonorrhœa*.

In the *second case*; that is to say, when the *gonorrhœa* degenerates into a constant gleet; the diagnostic is more difficult; and it can only be founded on the following signs.

1°. On that the discharge of the *menses* subsists without diminution in the constant gleet: whereas, most commonly, it ceases, or diminishes, in the *fluor albus* of the same date.

2°. On that the constant gleet must have been preceded by those symptoms which are peculiar to the recent and inflammatory *gonorrhœa*: whereas, these symptoms have not preceded in the *fluor albus*.

3°. On that the discharge is very moderate in the constant gleet: whereas it is commonly more copious in the *fluor albus*.

4. On that the constant gleet communicates itself to those who have commerce with the patients: whereas the *fluor albus* is never infectious; and that it cannot effect more, than the producing slight excoriations, without any other consequence.

In the *third case*; that is to say, when there is a complication of the *fluor albus* and *gonorrhœa*, either it must be, 1°. That the *gonorrhœa* comes after the *fluor albus*; and then there is time beforehand to distinguish the *fluor albus* by the appearances that are peculiar to it, and which have been enumerated in the beginning of this article: and when the *gonorrhœa* comes, it may be known by the appearances, which distinguish it: such as heat of urine; burning; *phlogofis*; the inflammation of the parts; pain in coition; &c.

Or otherwise, 2°. It must be, that the *fluor albus* comes after the *gonorrhœa*, which is nevertheless rare;

then the *gonorrhæa* may be beforehand distinguished, by its peculiar appearances, when it has begun : and the *fluor albus* distinguished in its turn, by the appearances, which makes its proper specification, when it is come on.

III. The appearances, that have been mentioned, suffice for the distinguishing the *fluor albus* from a constant gleet, or from a virulent *gonorrhæa*, if dependance could always be had on the accounts given by the patients of themselves. But it sometimes happens, that they have only had a slight *gonorrhæa*, which has not caused heat of urine, or burning in the parts, in a sufficient degree to be taken notice of ; while at other times it happens, that being inattentive, or ignorant, they overlook these accidents, though more distinguishable ; or have neglected them as of little consequence : and, moreover, it happens more frequently still, that they have very cogent reasons for concealing what has befallen them, and what they have observed, in order to endeavour to make their case be believed to be different. In such circumstances, these are the means to clear up the doubts they raise, by their simplicity, or to avoid the imposition they intend ; and to procure the necessary lights for judging, if the discharge, of which they complain, ought to be imputed to a constant virulent *gonorrhæa*, or to the simple *fluor albus*.

1°. The quantity of the discharge should be first well examined. In general, it is always moderate in the constant *gonorrhæa*: whereas it is, for the most part, considerably copious in the *fluor albus*. It may, therefore, be decided, with sufficient certainty, to be the *fluor albus*, when the discharge is copious : but it must be confessed, that when the discharge is moderate, it is not equally decisive, that it is a *gonorrhæa*: because, sometimes, the *fluor albus* is scarcely more copious than a simple *gonorrhæa*.

2°. In this last case, recourse must be had to the examination of the patients. There are distinguished, in women, three seats of virulent *gonorrhæas*; and, con-

consequently, as many of constant gleets. 1°. The *prostata*; from whence the matter flows into the higher part of the *vulva*, by the *lacunæ*, on the right and left of the *urethra*: 2°. Cowper's glands, placed at the lower part of the *vulva* in the *isthmus*, or about the entrance of the *vagina*; from whence the matter flows into the *vulva*, near the *anus*; or into the bottom of it, near the entrance of the *vagina*. 3°. The glands of the *vagina* itself; from whence the matter flows into its cavity, and runs from thence into the *vulva*.

In the two first cases, by the examination of the patient, either there is a certainty of the reality of the *gonorrhœa*, when the matter is seen to run out of the *lacunæ*, or the orifices of Cowper's glands; when it is seen to be collected in the higher or lower parts, or the bottom of the *vulva*, without any thing running from the *vagina*; or when the redness of the extremities of the *lacunæ*, or of the orifices of Cowper's glands, is visible: or there is, on the contrary, a certainty, that it is only a simple *fluor albus*, when the matter is seen to flow from the *vagina* without any change in the extremities of the several excretory ducts of the *prostata*, and Cowper's glands.

3°. But the same advantage is not to be had in the third case: because in the *gonorrhœa* of the *vagina*, the matter runs from the bottom of the *vagina* itself, as in the most simple *fluor albus*. There does not remain consequently any resource, except information, with regard to the conduct of the patients, or that of their husbands, if they be married: and if there be reasonable suspicions, the remedies ought, without hesitation, to be employed, which are proper in a *gonorrhœa*; and which happily are not against the *fluor albus*. This practice will soon procure the necessary lights; for if it succeeds fully, it is a proof, that the disorder was only a simple *gonorrhœa*; and if it do not succeed at all, it is a sign that the disorder is only a simple *fluor albus*; and if it succeeds in part, it may be reasonably

sionably concluded, that the disorder was a complication of a *gonorrhœa* and *fluor albus*.

IV. This dilemma would never occur, if it was true, that there were one certain criterion for distinguishing the discharge of a *gonorrhœa* from the *fluor albus*; as several physicians have pretended. For if we were to give credit to them, there would be nothing more required, than to procure the information, whether the discharge continued during the time of the *menses*, or ceased while they flowed. In the first case, it is, according to them, always a virulent *gonorrhœa*, or a *gleet*; and, in the second, only a simple *fluor albus*.

I did not think it necessary to insert here the passages of authors, who have advanced these facts as certain; as it is sufficient to refer to them, in order that they may be consulted: but I thought it proper to mention the words themselves of Baglivi¹; who, without quoting any person, speaks, as originally, on this matter in the most pre-emptive manner. This instance may serve to caution young physicians against that air of confidence, with which this author usually decides in cases the most problematical.

Fluor albus uterinus, says he, *& gonorrhœa gallica ad eum similibus concomitantur symptomatis, ut quisquis Medicorum ferè semper decipiatur in illorum diagnosi, præsertim cum mulierculæ verecundiâ perfusæ gonorrhœam per impurum scortum contractam fluoribus uterinis mentiantur.* *Ne succedant in posterum hæc incommoda, dabo signum in-*

¹ Johannes Fernelius, *Patholog. Lib. VI. Cap. 16.*

Jean Liebault, *De la santé, fécondité & maladies des femmes. Lib. II. Cap. 86.*

Ludovicus Mercatus, *De affectione Mulierum. Lib. I. Cap. 15.*

Rodericus à Castro, *De Morbis Mulierum. Lib. I. Cap. 14.*

Lazare Pé, *Maladies des Femmes. Liv. II. Cap. 36.*

Jacobus Primerosias, *De Morbis Mulierum.*

François Mauriceau, *Maladies des Femmes grosses. Traité Anatomique des Parties des Femmes qui servent à la génération, Cap. 6.*

Gualtherus Charleton, *De Causis Catameniorum & uteri Rheumatismo, Cap. 8.*

Petrus Fresart, *Emmenolog. Cap. 10.*

* Præcess., *Lib. II. Cap. 8. Artic. 3.*

fallibile tales morbos ad invicem distinguendi. Petet à muliere, an superveniente menstruo sanguinis fluxu, perseveret quoque eodem tempore fluor ille albæ materiæ; si dicat quod sic, significato eidem quod morbus, à quo divergetur, sit gonorrhœa gallica; si verò, durante menstruatione fluor albus evanescat, & eadem finitâ denud regrediatur, pro certo habebas mulierem fluore uterino laborare. Cætera signa fallunt, hoc verò constans est & mulierum dolum aperte deludit.

But, in spite of the number of authorities, and the decisive tone of Baglivi, who seems to countenance this notion, nothing is more ill founded; nothing more false; than this pretended criterion. For, 1°. The discharge of the *fluor albus* does not cease during the *menses*, it only becomes imperceptible, because the discharge of blood, which comes from the same places, does not permit it to be then distinguished. 2°. It is evident, that, in the *gonorrhœa*, which has its seat in the glands of the *vagina*, and is that in question here, the same thing must happen from the same reason; as the blood of the *menses*, which is mixt, at that time, intimately with the matter itself of the *gonorrhœa*, prevents it from being distinguishable; which renders this pretended criterion absolutely useless in this kind of *gonorrhœa*, which is the principal subject of consideration here. 3°. I subjoin, that this criterion is equally useless in the *gonorrhœa* of Cowper's glands; and even in that of the *prostate*; when the *menses* are copious: because, it is impossible, but that the whole extent of the *vulva* must be then overflowed with the blood, that runs from the *vagina*: which must change the matter, that comes out from the excretory ducts of the glands; and prevent its being distinguished.

V. We should be greatly to blame to have spent so much time on a diagnostic so difficult; if it were true, as Pitcairn pretends, that this diagnostic was useless. It is not even necessary, according to him, to distinguish the virulent *gonorrhœa* from the *fluor albus*, because the latter, even when it has nothing venereal,

can

can scarcely ever be cured, but by anti-venereal remedies: *Non opus est,* ¹ says he, *distinguere inter fluorē muliebrem gallicum & non gallicum, cum raro (secūs ac in viris) possit fluor albus tolli, etiamsi virulentus non sit, nisi remediis lui gallicæ propriis.*

It is on the same principle, that this author omits to prescribe any remedies for the *fluor albus*, into which *mercurius dulcis*, cinnabar, guaiacum, farfaparilla, &c. do not enter. But the principle is false; and the practice dangerous. Reason itself dictates, that anti-venereal remedies are not proper, where there is nothing venereal; and experience is perfectly agreeable to reason, with respect to this article.

Diagnostic of the species of the disorder. When the disease itself is clearly ascertained, it must be endeavoured to distinguish the particular kind; and, in order to judge of that, it is proper to examine the condition of the cloths worn by the patients.

I. The *fluor albus* is milky, where the matter of the discharge is thick: when it does not run through the cloth, nor penetrate into the folds: when it is glutinous, &c: and it is to be considered as milky of the first, second, or third kind, according as the matter is more or less white; or has more or less resemblance to water-gruel.

It is, on the contrary, lymphatic, when it is serous, easily imbibed by the folds of the cloths, and sinks into them; and when it is slightly, or not at all glutinous.

II. The simple examination of the cloths affords a certainty, whether the matter of the discharge be white, yellow, green, or red; and in what degree: as also, whether it have any smell; and in what degree.

III. It is only by the accounts of the patients, that it can be known, whether the matter be acrid: whether it corrodes, or excoriates the part: whether it cause smartings, &c: or be, on the contrary, exempt from these qualities.

¹ Elementar. Medicin. Cap. 27.

IV. Moreover, it is, also, from the patients alone, that it can be learnt, whether the discharge be constant, or subject to intermissions: whether these intermissions be periodical, or not: whether the constant discharge suffers any variations: and, whether these variations observe any regular order: &c.

Diagnostic of the causes of the disorder. The third article of the diagnostic of the *fluor albus* regards the causes, which produce it; and these causes are different, according to the different kinds of it.

I. If the humour of the *fluor albus* be milky; that is to say, like milk, whey, or water-gruel; the disorder should be imputed only to the escape of the milky humour of the *uterus*: and this escape, at least when it begins, is not owing to any other cause, in general, than the copiousness, and the fluidity of this humour; or to the dilatation, or relaxation, of the orifices of the vessels designed to contain it. But the application of these causes varies in particular cases.

Thus, 1°. When the humour is thick, and white, resembling milk, and flows only at the approach of the *menses*, the *fluor albus* proceeds only from the too great abundance of such humour, particularly if the patients be fat, use little exercise, or have lately suppress'd their milk, in case of their having given suck.

2°. When the humour inclines to be transparent, but is white, and resembling whey, and the discharge is constant, the *fluor albus* comes then both from the copiousness and the fluidity of this humour; and sometimes from the relaxation of the orifices of the vessels which should contain it.

3°. When the humour is mucilaginous, and resembling water-gruel, and the discharge appears only towards the time of the *menses*, the *fluor albus* comes either from the too great fluidity of this humour alone, or, which is more common, from the too great fluidity of the humour, and the too great relaxation of the vessels intended to contain it.

4°. When

4°. When the humour is mucilaginous, and like water-gruel, and the discharge is constant, the *fluor albus* comes from the too great fluidity of this humour, and from the relaxation of the orifices of the vessels where it is collected.

II. If the humour of the *fluor albus* be serous, and purely lymphatic, the disorder can only be ascribed to the escape of the lymph; and this escape is caused, either to the lymph's transuding through the coats of the vessels which are too full; or to its extravasation from the vessels that are torn, which depends on the nature of the causes that occasion the disorder.

Thus, 1°. If it be known that the patient is subject to a *descensus* of the *uterus*, that there are obstructions, tubercles, *schirrus*, or cancer in the *uterus*; that the lymphatic glands, which serve as reservoirs to the lymph which comes from the *uterus*, are obstructed, gorged, indurated, &c. and that there are proofs, these several causes are yet recent, or of a moderate degree of power; in these cases, the lymphatic *fluor albus* ought to be attributed only to a simple transudation of the lymph, through the coats of the lymphatic vessels, which are too full; particularly when the discharge is sparing.

2°. On the contrary, if there be proofs that these causes, or any of them, be of long standing, or at least subsist, in a very great degree, it is to be feared that the lymphatic vessels are already torn, in consequence of being too full, or too long a time full; and in this case there is room to suspect, that the *fluor albus* proceeds now from the extravasation of the lymph; more especially when they are copious.

3°. There can be no doubt of the dilaceration of the vessels; nor can the referring the *fluor albus* to the extravasation of the lymph, which is the consequence of it, be avoided, when it is known, that the internal coat of the *uterus* has suffered any violent distention, excoriation, erosion, exulceration, &c.

III. Lastly, of whatever kind the *fluor albus* may be, and from whatever cause they proceed, their colour,

smell, and acrimony, are certain indications of the state of the interior surface of the *uterus*.

Thus, 1°. If the humour of the *fluor albus*, whether milky, or lymphatic, be clear; and without smell, and acrimony; it is a proof, that there is not any solution of continuity in the *uterus*; or, at least, that if there be any, it is very recent, since there is no sensible suppuration.

2°. That, if on the contrary, the humour be yellow, green, or reddish; if it have a bad smell; or if it be acrid and corrosive; there can be no doubt then, that there is some division of the vessels in the *uterus*; and of a long standing; since it has already produced ulceration and suppuration.

3°. Lastly, the more the natural colour of the humour is changed, the smell foetid, and the acrimony great, the more it must be concluded, that the exulceration of the *uterus* is large, deep, and of long standing.

§. VI. PROGNOSTIC.

I. In general, 1°. The *fluor albus* is a troublesome disease: which takes off from the cleanliness of the women, and renders them less agreeable to their husbands.

2°. The *fluor albus* is always a bad disease, from the accidents that it usually brings on: such as barrenness, weakness, *cachexy*, leanness, disgust to food, obstructions, tumefaction of the extremities, the *descensus*, or exulceration of the *uterus*, &c.

3°. The *fluor albus* is a disease, for the most part, of long continuance, obstinate, and difficult of cure, particularly in women of a bad constitution, *cachymic*, whose blood is depraved, or who have the *uterus* in a weak state, obstructed, or hurt: for, in these cases, it lasts almost as long as life.

4°. The *fluor albus* is troublesome, bad, and difficult of cure, only when it is constant, and copious: for otherwise, it is supportable, not attended with danger, and even capable of being cured, when

it is moderate ; and leaves long intervals, in which the patient is free from it.

5°. The *fluor albus*, even when constant, and copious, is rarely of itself a mortal disease ; at least, unless it brings on dropsy ; slow fever ; or an ulceration, *schirrus*, or cancers of the *uterus*.

II. In particular, 1°. The milky *fluor albus* is less bad, and more easy of cure, than the lymphatic : on account that it does not suppose any fault in the *uterus* ; or that it supposes only a simple relaxation of the lactiferous vessels ; which may be easily remedied : whereas, the lymphatic *fluor albus* supposes always, in the *uterus*, either obstructions, that stop there the circulation of the lymph, which are not easily to be removed ; or dilacerations in the interior surface of it, which are yet more difficult to be cicatrized.

2°. Among the kinds of milky *fluor albus*, that which is the most truly milky, is the most easy to be cured : because it does not suppose any local fault. That which is half milky holds the next rank : because it most frequently supposes only a simple excess of fluidity in the milky humour of the *uterus* ; which may be easily corrected. In the third rank may be placed that which is mucilaginous, like water-gruel : because, besides the too great fluidity of the milky humour, it supposes yet, most generally, a relaxation in the orifices of the lactiferous vessels of the *uterus*.

3°. Of what kind soever the milky *fluor albus* may be, that which is subject to intermissions, whether periodical or irregular, is cured more easily than that which is constant ; because, in the last, there is always a relaxation in the orifices of the lactiferous vessels of the *uterus*, which is not in the others ; or, at least, not in so great a degree.

4°. It follows from thence, that the more long the intermissions of the milky *fluor albus* are, and the less the discharge is, the more, likewise, it is curable ; and, from the reverse of these reasons, that the more the milky *fluor albus* is constant and copious, the more, also, it resists the effects of remedies.

5°. Among the kinds of the milky *fluor albus*, those which come from the simple repletion of the lymphatic vessels, from whence the lymph is forced to escape by way of transfusion, are more easy to be cured, than those which come from the dilaceration, or the erosion of the vessels: because, in the last case, there is a solution of continuity, which always aggravates the disorder.

6°. Of whatever kind the lymphatic *fluor albus* may be, it is always so much more dangerous, other things being equal, as it is more copious, or subject to longer and more frequent augmentations: because, it is evident, that the causes, which produce them, must, in such case, be either more universal in the extent of the *uterus*; or, at least, more considerable, if they be not more universal.

III. Other things being equal, 1°. The discharges of the *fluor albus*, which are acrid, corrosive, and foetid, are more dangerous, and obstinate, than those which have neither *fætor*, nor acrimony: because they more imminently threaten the *uterus* with ulceration; or even indicate the exulceration to be already made.

2°. The discharges, which are yellow, greenish, reddish, &c. are more dangerous, and obstinate, than those which are white, or transparent: because they are always more acrid, and corrosive.

3°. The discharges, of long standing, are more difficult of cure, than those which are recent; because they suppose an older, and more dangerous cause; and because there is more reason to fear, that the internal surface of the *uterus* has already suffered some solution of continuity.

4°. The discharges, attended with pain in the *uterus*, are more to be dreaded, than those which are without pain: because pain is a criterion, that the *uterus* is inflamed, ulcerated, or in danger of becoming cancerous: which there is no reason to apprehend, when there is no pain in the *uterus*.

5°. The discharges are generally more easy to be cured, and less dangerous, in young women, in whom the

the blood is, for the most part, more sweet, and the elasticity of the *uterus* more strong, or at least more easily to be restored, than in women advanced in years, in whom the blood is more acrid ; and the relaxation of the *uterus* more difficult to be removed.

IV. Those which should be regarded as absolutely incurable, are, 1°. The *fluor albus* of long standing, especially in women of a delicate constitution ; or who are old, cacoehymic, &c.

2°. The *fluor albus*, which depends on a *schirrus*, ulcer, or cancer of the *uterus* ; or which has already degenerated into some of these diseases : because these diseases themselves are incurable.

3°. The *fluor albus*, which is attended with shooting pains in the *uterus* : because these pains evince always a cancerous disposition, or somewhat tending towards it.

4°. The *fluor albus*, which has brought the patient into a slow fever, *marasmus*, *anasarca*, or dropfy, from whence it is impossible to recover them.

V. In any case, 1°. It should never be proposed to stop the *fluor albus*, without having prepared the patients by remedies proper to evacuate the depraved humour, sweeten the blood, and restore digestion.

2°. In any case, excepting only the *fluor albus* purely milky, which comes solely from the too great abundance of the uterine milk, it should not be attempted to stop suddenly the discharge, for fear the humour retained may affect some more important part.

3°. In any case, it should not be attempted to cure, even if it be practicable, the *fluor albus*, which is of long standing, in women of a bad constitution, cacoehymic, advanced in years, &c : for fear of throwing them into some disease still worse : but, in such circumstances, the palliative method only should be pursued.

4°. The same method should be followed in all the other cases, where the *fluor albus* is incurable ; and where, consequently, the only resource, that remains, is to render the disorder more supportable.

§. VII. *Method of cure.*

As the *fluor albus* is of two kinds, either *milk*y, or *lymphatic*; and these two kinds constitute two different diseases; it follows, that the method of cure must be different also. It is proper, therefore, to treat of them in two separate articles; and even a third may be subjoined to them, for the palliative cure of both kinds: when there is a failure of success in curing them radically; or that the bad state of the patients does not permit it.

Method of cure of the milky fluor albus.

The *MILKY fluor albus* depends on three causes: either on the too great copiousness of the milky humour; the too great fluidity of it; or the too great relaxation of the orifices of the vessels of the *uterus* designed to contain it.

I. If the milky humour be faulty only in being too abundant, which occasions it to fill in too great a degree its vessels, and forces their orifices to open too soon, in consequence of which it runs out of them; in such case, the necessary means of remedy are,

1°. To prescribe to the patients a proper regimen; and to oblige them to be moderate, as to the quantity of their food; to restrain themselves to the eating only such aliment, as is in a small degree nutritive; to use more exercise; to sleep less; &c.

2°. To bleed them often; in order to diminish the quantity of blood, and humours; and always in the arm, to derive the course of the blood from the *uterus*.

3°. Frequent purges, to carry off a part of the chyle from the *prime viæ* by stool: and, at the same time, and by the same means, to procure other evacuations, which may empty the vessels by urine, and sweat.

4°. To vomit them from time to time; in the same view; supposing the delicacy of their constitution, or the bad state of their breast, does not render it improper.

5°. To give them every day glysters, of the decoction of the roots of birthwort; the leaves of mugwort or mercury; or the flowers of camomile, melilot, or motherwort; &c. to which is added, the oil of dill, or bays, in the proportion of an ounce, to render them carminative: or, they should be made purgative, by diluting the pulp of *cassia*, or some diaphenic in them; or by boiling in them, one or two drams of the leaves of *sena*.

6°. Lastly, if the disorder continue obstinate, to prescribe diuretics or sudorifics, in order to evacuate, by urine, or sweats, a part of the too copious milky humour; or, at least, dissolvents, and aperitives, in order to attenuate this humour; and to put it in a state to pass from the lactiferous vessels of the *uterus* into the lymphatic veins, which spring from them; and to follow, by this means, the ordinary course of the circulation of the lymph.

II. If the milky humour be too fluid, and escape insensibly through the orifices of its own vessels, without any relaxation on their part, it is proper, in order to remedy this defect, to render it thicker by the following medicines.

1°. By the use of nutritive and incrassating food; as good potages, boiled rice, gruels, boiled wheat, &c. prepared broths, or almond milk.

2°. By the use of asses milk, taken once or twice a day; or of that of cows, drunk in the same manner, morning and evening; or even taken as the whole food, if the stomach can bear it.

3°. By the use of ptisans, proper to cause a more firm union of the parts of the blood; as the ptisan of the roots of yellow mallows, water-lily, or comfrey.

4°. By a moderate use of narcotics, to make the patient sleep; which will contribute very effectually to thicken the blood, and humours.

5°. By the use of absorbents, or astringents; of which we shall speak below in the following article; and among which, the most gentle, and least styptic, should be chosen.

III. If

III. If the orifices of the lactiferous vessels are too open, and cannot contain the milky humour, which passes into them, it is proper to endeavour to restore the elasticity, by drying and strengthening them, or by reclosing and contracting them.

In the first intention; that is to say, to dry and strengthen them; must be employed,

1°. Baths, and stoops of thermal waters; especially those, which are bituminous, and sulphureous.

2°. Pumping on the reins, loins, or *os sacrum*, with the same water, which should be repeated; but more or less often, according to the quality of the waters.

3°. Injections with the same waters into the *uterus*: or the fumes of these waters received by a funnel.

4°. The internal use of the same waters, in the proportion, and at the time, which is most proper, according to their qualities and strength.

5°. Sudorifics, as viper-broth, for twelve, fifteen, or twenty days; or the ptifans, and diet drinks, with guaiacum, sassafras, china root, sarsaparilla, &c. for fifteen days, three weeks, or a month.

6°. Diuretics; as broths, or ptifans, with the root of parsley, *eryngo*, rest harrow, &c. *millepedes*, Glauber's salt, the *arcanium duplicatum*, &c. for the time, that may be judged proper.

7°. In particular, the decoction of the roots of *asarabacca*, and smallage; of which Galen¹ made use with success, to cure the *fluor albus* of long standing in the wife of Boethus: and which held a place among the diuretics.

To effect the second intention; that is to say, to close, and contract the orifices of the lactiferous vessels of the *uterus*; either vulneraries slightly astringent, which contract gently; or, astringents, simply, which have the same effect in a greater degree, may be used.

1°. The vulneraries, slightly astringent, are,

¹ Lib. de Præcognit. ad Posthumum. Cap. 8

R O O T S.

- Of black briony; — comfrey,
- In ptisan, or in decoction, from half an ounce, to an ounce in a pint of water.

L E A V E S.

- Of bugle,
— fanicle,
— white daisy,
mint,
sage,
— wild tansie,
— ladies mantle,
golden rod,
— horehound,
calamint,
— pennyroyal,
rosemary,
— wintergreen,
— clary,
— moneywort,

In ptisan, decoction, or broths, from half a handful to a handful each dose.

J U I C E S.

- * Mastic,
* *Labdanum*,
* Myrrh,

In powder, and in substance, from half a scruple to a scruple, or scruple and half.

W O O D S.

- Mastic tree,
Juniper tree,

In decoction, in the proportion of half an ounce, to a quart of water.

In substance, and in powder, from one to two scruples.

B A L S A M S.

BALSAM S.

- * Of Peru, dry or liquid, } By drops, from four
— Tolu, to ten, rolled in sugar,
* — Capivi, powdered; or between
* — Canada, two layers of syrup.

* Turpentine, } From a scruple to
 half a dram, diluted
 with the yolk of an
 egg.

2^o. The pure astringents,

VEGETABLES.

R O O T S.

- * Of bistort, } In decoction, from
* — tormentil, one ounce to an ounce
* — dropwort, and half, in a pint of
— Solomon's seal, water.
— pimpernel,
— cinqfoil,

L E A V E S.

Of plantain,

- * — dead nettle, } In decoction, from
* — yarrow, half an handful, to
* — rupturewort, two handfuls, in a
* — shepherds purse, quart of water.
* — horsetail, The clarified juice
— *Thalictrum*, to two ounces.

F L O W E R S.

- * Balaustines, } In decoction, half
* Roses, red, or Provence, an ounce to the quart.
Spongy substance, growing In substance, two
on the wild rose, or sweet scruples in powder.
briar,

F R U I T S.

FRUITS.

Acorns, baked in an oven with their calyces,	In decoction, half an ounce to the quart.
* Galls,	
* Fruit of the sumach tree, Dates,	In substance, two scruples in powder.
Shells of nuts,	

JUICES.

* Dragons blood,	In substance, re- duced to powder,
* Mastic,	from half a scruple to half a dram.
<i>Hypocistis,</i>	
True Acacia,	In decoction, in double the propor-
* Terra Japonica,	tion.

WOODS AND BARKS.

Sanders,	In decoction rasped, in the proportion of an ounce to a quart.
Burnt cork,	In substance pow- dered, from half a scruple to half a dram.

ANIMALS.

* Cuttle fish-bone,	In powder, from
Head of a pike,	half a scruple, to half
Shells of eggs that have been sat upon,	a dram.

* Ivory porphyrised,

MINERALS.

* Prepared coral,	In powder, from
* Amber,	half a scruple to half a
* <i>Terra sigillata,</i>	dram.
<i>Osteocolla,</i>	
* Roch alum,	

BALSAM S.

- * Of Peru, dry or liquid, } By drops, from four
 — Tolu, to ten, rolled in sugar,
* — Capivi, powdered; or between
* — Canada, two layers of syrup.

* Turpentine, } From a scruple to
 half a dram, diluted
 with the yolk of an
 egg.

2°. The pure astringents,

VEGETABLES.

R O O T S .

- * Of bistort, } In decoction, from
* — tormentil, one ounce to an ounce
* — dropwort, and half, in a pint of
 — Solomon's seal, water.
 — pimpernel,
 — cinqfoil,

L E A V E S .

Of plantain,

- * — dead nettle, } In decoction, from
* — yarrow, half an handful, to
* — rupturewort, two handfuls, in a
* — shepherds purse, quart of water.
* — horsetail, The clarified juice
 — *Thalictrum*, to two ounces.

F L O W E R S .

- * Balaustines, } In decoction, half
* Roses, red, or Provence, an ounce to the quart.
Spongy substance, growing In substance, two
on the wild rose, or sweet scruples in powder.
briar,

F R U I T S .

FRUITS.

Acorns, baked in an oven with their calyces,	In decoction, half an ounce to the quart.
* Galls,	
* Fruit of the sumach tree,	In substance, two scruples in powder.
Dates, Shells of nuts,	

JUICES.

* Dragons blood,	In substance, re- duced to powder,
* Mastic,	from half a scruple to half a dram.
<i>Hypocistis,</i>	
True <i>Acacia</i> ,	In decoction, in double the propor- tion.
* <i>Terra Japonica</i> ,	

WOODS AND BARKS.

Sanders,	In decoction rasped, in the proportion of an ounce to a quart.
Burnt cork,	In substance pow- dered, from half a scruple to half a dram.

ANIMALS.

* Cuttle fish-bone,	
Head of a pike,	
Shells of eggs that have been sat upon,	In powder, from half a scruple, to half a dram.
* Ivory porphyrised,	

MINERALS.

* Prepared coral,	
* Amber,	
* <i>Terra sigillata</i> ,	
<i>Osteocolla</i> ,	
* Roch alum,	

PREPARATIONS.

Syrup of pomegranates,	}	In the dose of one, or two ounces.
— coral,		
— red roses,		
— dried roses,		
— comfrey,		
— nettle,		

WATERS.

Water of ladies mantle,	}	In the same pro- portion, as the pre- ceeding.
— wild tansie,		
— yarrow,		
— dead nettle,		
— leaves of oak,		

With these different medicines, properly chosen, and proportioned, may be made at will, and according to the taste of the patients, ptifans, apozems, broths, potions, juleps, bolusses, opiates, powders, troches, &c. by following the rules necessary for the right formation of each kind of composition.

IV. Lastly, if the causes of the milky *fluor albus* be complicated, two, or all the three classes together, it is proper, in such case, to combine also the remedies, which are suitable to each class of the causes; in order to adapt the effects of the medicines to the state of the disorder.

Method of cure of the lymphatic fluor albus.

The LYMPHATIC *fluor albus* is owing to these two first causes; the transfusion of the lymph through the coats of the vessels designed to contain it, though these vessels remain intire: or the efflux of lymph from its proper vessels, when they are torn. On one hand, the first of these causes; that is to say, the transfusion; proceeds from, that the lymphatic vessels are too full of lymph, which stagnates there, either by the distention, which the bearing down of the

uterus

uterus causes ; or by the obstacle, which *ganglions*, tubercles, *schirrusses*, or obstructions of the *uterus* oppose to it. On the other hand, the other cause ; that is to say, the efflux of the lymph ; is always the consequence of choppings, cuts, or lacerations, which happen in the interior coat of the *uterus* ; and, consequently, in the lymphatic vessels, which supply it. In the cure, therefore, of the lymphatic *fluor albus*, attention must be given to three things. 1°. To the beating down of the *uterus* : 2°. To the obstructions, tubercles, *ganglions*, or *schirrusses* of the *uterus* : 3. To the choppings, lacerations, or cuts of the interior coat of the *uterus* ; and of the lymphatic vessels, which are distributed there.

I. When the lymphatic *fluor albus* is caused, or continued, by the bearing down of the *uterus*, it is proper to employ, without delay, the remedies which are suitable to this disease ; and which are found in *Chapter X. of Book II.* But, in waiting for the success of them, an uterine circle must be used to support the *uterus*. The disorder is even sometimes so great, that it cannot be hoped to obtain a radical cure ; and there is no other resource, than to endeavour to diminish the bad effect, and prevent the consequences, by the continual use of the circle.

II. When the lymphatic *fluor albus* depends on obstructions, tubercles, *ganglions*, or *schirrusses* of the *uterus*, it is proper to attempt to cure, or diminish these disorders, as much as may be ; and to employ, to this end, diluents, and aperitives, either separately, or together, according to the state of habit of the patients. These diluents will be amply treated of in the following articles, on occasion of the palliative cure. As to the aperitives, and dissolvents, although they have been already mentioned in *Chapters the IVth and VIIIth*, in speaking of the *menses supprest*, and of the *chlorosis*, the most useful remedies of this class will be enumerated here.

VEGETABLES.

1°. ROOTS.

- * Of *asparagus*,
 - * — *eryngo*,
 - * — *rest harrow*,
 - * — *petty whin*,
 - * — *madder*,
 - * — *sharp-pointed dock*,
- } From one ounce,
to an ounce and half.
} From half an ounce
to an ounce.

LEAVES.

- * Of wild succory,
 - * — *pimpernel*,
 - * — *harts tongue*,
 - * — *agrimony*,
 - * — *water cresses*,
 - * — *chervil*,
- } From an handful to
two.

ANIMALS.

- * *Millepedes*,
- } Twenty, or thirty,
to a quart.

SALTS.

- * *Sal mirabilis Glauberi*,
 - * *Arcanum duplicatum*,
- } From half a dram
to a dram.

With which may be made ptisans, apozems, and broths; which unite the qualities and advantages of diluents, and dissolvents. In order to which, there is nothing more requisite, than to chuse the roots, leaves, or salts, which are most proper.

2°. GUMS AND RESINS.

- * *Gum Arabic*,
 - * *Opopanax*,
 - * *Galbanum*,
 - * *Sagapenum*,
 - * *Bdellium*,
- } From four grains to
ten.

3°. PRE-

3°. PREPARATIONS OF STEEL.

- * Saffron of Mars,
 - * Rust of iron porphyrised,
 - * Saffron of Mars, prepared with water; or martial Ethiops,
 - * Riviere's salt of steel,
 - * Martial flowers,
- } From twelve to fourteen grains.
} From eight to sixteen grains.

4°. MERCURIAL PREPARATIONS,
which do not purge.

- * Ethiops mineral prepared by heat,
 - * Factitious cinnabar,
- } Fifteen, or twenty grains.
} From four grains to eight.

5°. ANIMALS.

- Millepedes*, in powder, One or two scruples.

Of which, by chusing two or three of the articles, may be compounded powders, bolusses, opiates, and pills; that may be given with the broths, and apozems, mentioned above.

III. When the lymphatic *fluor albus* comes from lacerations, and choppings of the internal coat of the *uterus*; and of the lymphatic vessels, which are distributed in it; use must be first made of agglutinative remedies, and farinaceous diet, to heal the divided parts: after which, recourse must be had to vulneraries, to procure a sound *cicatrix*.

1°. The agglutinative remedies are,

R O O T S.

- * Of yellow mallows,
 - comfrey,
 - water lily,
- } One ounce:

LEAVES.

* Of mullein,	} One or two handfuls.
* — purflain,	
* — lettuce,	
* — borage,	
— <i>Cymbalaria</i> , or ivy-leaved toads flax,	

With which may be made pifans, broths, and a pozems ; to which may be added, hartshorn or ivory shavings, in proportion of half an ounce to a quart.

2°. The farinaceous diet consists of

- Rice ;
- Gruel of barley, or oatmeal ;
- Pearl barley ;
- Boiled wheat ;
- Vermicelli ;
- Sago ;

that may be used, as food, for the patients, during the first days ; and to which should be added, broths of fish, frogs, snails, and tortoises, when there is occasion to sweeten, and incrassate the blood more effectually.

3°. INSPISSATED JUICES.

<i>Labdanum</i> ,	} From ten to twenty grains.
<i>Hypocistis</i> ,	
<i>Acacia</i> ,	
* Dragons blood,	

* Sago comes from the West-Indies. It is the pith of a kind of palm, which grows there, and is called *Toda Panna*. They fell these trees, when they are of a certain growth, split the trunk, and take out the pith, which is in a large quantity. They beat it in a mortar, reduce it to a kind

of paste, and dilute it with water, which is passed over it. They let this water settle, and pour off the fluid from the sediment, of which they form grains. Sago supplies a very light and very sweetning nourishment; and may be dressed with broth or milk, at discretion.

GUMS OR RESINS.

- * Gum Arabic,
 - * Gum tragacanth,
 - Amber,
- } From twenty to
thirty grains.

Which may be employed, to compose bolusses, opiates, or pills, that may be used together with the broths.

With relation to the vulneraries, those, which are most recommended, will be found above, page 299, and the following: and it would be, therefore, useless to repeat them here.

IV. Lastly, when the causes of the lymphatic *fluor albus* are complicated, two, or all three together, it is proper, in such case, as we have said with respect to the milky *fluor albus*, to combine together the suitable remedies for each of the causes, in order to oppose the whole force of the disorder.

Method of palliative cure of the fluor albus.

It has been shewn above, §. VI. Art. iv. and v, which are the cases, where no hopes should be entertained of curing the *fluor albus*; and which, where it ought not to be undertaken to cure them, even if there were a prospect of success. It is proper, in such circumstances, to rest satisfied with the palliative cure, designed to mitigate the violence of the disorder, and to retard the effects of it.

In this view, 1°. A strict regimen should be prescribed to the patients; and they should be confined to potages, rice, and boiled wheat; permitting them to eat, at most, only a very little boiled or roasted meat; and forbidding absolutely all sorts of ragouts, and the use of wine; or allowing them only as much as may be proper, to keep their stomach in order.

2°. To take care to purge them often; but with gentle medicines; composed of *cassia*, tamarinds, rhubarb, manna, syrup of apples, compound syrup of succory, or syrup of peach flowers, &c.

3°. To order, from time to time, bleeding in the arm; if the patients be young, or irregular in the *menses*; or have a full pulse; and especially if they feel any pains in the *uterus*, or the *abdomen*.

4°. To make a free use of sweetning, humectant, and diluent remedies; as,

Broths of chicken, veal, or frogs, with cooling herbs; such as borage, lettuce, dandelion, pellitory of the wall, in the case of dry and lean persons; but to which it would be well to add some craw-fish, in the case of patients of a phlegmatic constitution.

Apozems, and decoctions, with the roots of comfrey, and yellow mallows, sorrel; leaves of lettuce, purslain, and mullein; to which is added, some proper syrups, in the proportion of an ounce, or an ounce and half, to each dose: these may be such, as those of violets, yellow mallows, and comfrey.

Clarified, and chalybeated whey; to which some add a spoonful or two of the depurated juice of chervil, dead nettle, or yarrow; and an ounce of lime water of the second running.

Asses or goats milk, once or twice a day; or even that of cows, taken for the whole food, if the stomach can bear it.

Half, or whole baths of warm water, provided the breast be in a sufficiently good state to permit the use of it.

Lastly, chalybeate mineral waters, drunk in a moderate quantity, but constantly for a long time; such as the waters of Forges, Paffi, or Spa.

Among these remedies, the broths, apozems, and even the whey, are proper in winter. The use of milk should be confined to spring, and autumn; and the baths and mineral waters should be principally resorted to only in summer: though, in pressing cases, these remedies may be employed in every season.

5°. To prescribe, according to the occasion, slight narcotics: as the decoction of one or two heads of poppy; the syrup of *diacodium*, or of amber, in the

dose of three or four drams; liquid *laudanum*, in the dose of ten, twelve, or fifteen drops; *laudanum*, in substance, in the dose of a grain; pills of harts-tongue, or Starkey's, in the dose of four or five grains; &c. augmenting these doses, according to the exigence.

6° To recommend to the patients, not only to wash themselves several times a day with a slight decoction of the roots of yellow mallows, or the leaves of mullein, or even chervil, in which is mixt a little lime-water of the second running, or some drops of *aqua vulneraria*; but even to oblige them to make injections, at least once every day, with the decoction of yellow mallows, barley-water, or whey well clarified.

7° To forbid the patients, who are married, all commerce with their husbands; or, at least, to allow it sparingly: and to advise them, also, against all kind of exercise, on foot, horseback, or in a carriage; and to oblige them to lead a sedentary life, and to keep themselves almost always sittting, or laid down.

8° To propose to them, to suffer an opening, or two, to be made in their arms, by caustics; particularly in the case of those who are of a phlegmatic habit; abounding in viscid humours; very cacochymic; or advanced in years. It is often a serviceable remedy in these cases: but I must confess, that it is so slow in its effects, and moreover so disagreeable, that there are but few women, who will submit to it.

Necessary cautions in the treatment of the fluor albus.

I. It should never be attempted to cure the *fluor albus*, till after having endeavoured to correct, and purify the blood, by a proper use of diluting, and sweetning remedies: such as those, which have been proposed for the palliative cure.

II. It is even necessary to persist a long time in the use of these preparatory remedies, if the *fluor albus* be of long standing; if it happens to patients who are

in a greater degree cacochymic; or if it be of a more acrid, and corrosive quality.

III. Diluents, humectants, and sweetners, may be always employed with confidence in the treatment of the *fluor albus*, in the cases, where they appear to be indicated; because this cannot suppress the discharge suddenly; nor have any bad effect on the *uterus*.

IV. On the contrary, the use of aperitives, vulneraries, and astringents, cannot be entered on with too much circumspection, even in the cases where they are most proper: because they may suppress the discharge, with undue effect; or may bring an inflammation on the *uterus*.

V. To avoid these inconveniences, prudence demands, that diluents be always joined with aperitives; humectants, with astringents; and emollients, with vulneraries.

VI. It is even necessary, for the greater safety, to moderate the action of these remedies; or, at least, the effect they may have on the *uterus*; by the moderate use of some narcotics, given in small doses.

VII. Notwithstanding these precautions, it is still proper, that care should be taken to leave off these remedies, whenever it is perceived, the *uterus* is heated, or becomes painful.

VIII. It may be easily judged, that, on these principles, the injections into the *uterus*, which are too astringent, can never be approved of: such are those made with the pomegranate bark, balaustines, or red roses; particularly, if alum; the *lapis medicamentosus* of Crollius; Verny's powder, or even dragons blood, be added.

IX. It is much better to permit fumigations from the flowers of sage, mint, milfoil, &c. or from mastic, *labdanum*, gum juniper, yellow amber, &c. provided they be only employed in relaxations of the *uterus*; and made in small proportions; and with the requisite precautions, not to introduce the fumes more than just warm.

X. Lastly,

X. Lastly, the cure should not be precipitately declared, on the meer cessation of the discharge : but it is proper to wait till the due course of the *menses* be well restored in the women, who are of an age to have them yet, and the good health continue some time without any appearance of disorder ; or the other parts being affected by the humour.

*Remedies recommended for the cure of the fluor albus ;
but which cannot be used without danger in some
cases.*

I. Half a dram, or a dram of Venice turpentine, mixt with a scruple of rhubarb, in powder, in form of a bolus : after which a glass of acidulated ptisan is to be drunk. This remedy is taken ten or twelve days together successively. It purges gently ; and strengthens the elasticity of the vessels of the *uterus*. Riviere ¹ assures us, that he has made use of it with good success.

II. The syrup of the dung of an ass. It is prepared, by infusing four handfuls of the fresh dung, in a pint, or a pint and half of water. This infusion is strained ; and pressed from the dregs ; and an equal weight of sugar being added to it, it is made into a syrup, of which the dose is an ounce every morning, for several days. This remedy has already been proposed for the discharge of blood : but Bellonius ² recommends it, also, for the *fluor albus*, as a remedy of admirable virtues.

III. A slight decoction of the kernels of the cones of the pine-tree, bruised with skill ; and an ounce of mistletoe of the oak, rasped in two quarts of water, as the ordinary drink, for some time. This medicine unites the qualities of an agglutinant, and astringent. Dominique ³ Panarole boasts this medicine, as an admirable remedy, that he had several times proved.

¹ Centur. I. Observ. 46.

Lib. II. Consiliorum.

² Comment. ad Histor. II.

³ Observ. 48. Pentecost. 2.

The trial may be made of it without any inconvenience.

IV. Beef smoked, well dried at a fire, reduced to powder, diluted in half a glass of strong red wine, and taken in the morning fasting, in the dose of one dram for some days. This remedy has gained the approbation of Forestus. It is in fact only a simple astringent; gentle enough; but which has nothing that can give it the preference to several other remedies of the same nature.

V. The decoction of the leaves of oak, in the proportion of five or six ounces; in which is diluted a dram of the scrotum of a hare; and which is taken fasting every morning, for ten days.¹ Mercurialis proposes this medicine as a remedy, which he has several times proved, in the *fluor albus* of long standing; and it is in reality a good astringent.

VI. The decoction of guaiacum, *China-root*, or sarsaparilla, or the decoction of these three drugs together, in form of a sudorific ptisan, in the dose of two glasses, every day: the one in the morning fasting; and the other in the afternoon, four or five hours after dinner. This decoction, or ptisan, is rendered purgative, when it is thought proper, by the addition of the follicles of sena; or of tamarinds, in a due proportion.

Nothing is more recommended in authors, who wrote about two hundred years ago: but I am much afraid, they have confounded the simple *fluor albus* with the venereal runnings, or virulent gonorrhœas. These decoctions, and ptisans, may be proper in these two disorders, in the case of fat and phlegmatic persons; but they are never so in the *fluor albus*, except in the circumstances mentioned above §. VI.

Art. III. N° 5. page 294.

VII. The decoction of soapwort, which is prepared by boiling three handfuls of the leaves of this plant, two of those of dropwort, and one of those

¹ Lib. XXVIII. Observ. 16. ² De Morbis Mulier. Lib. IV. in S. bel. Cap. 7.

of the ivy-leaved toad flax, in nine pounds, or nine pints of water: which is to be reduced to six; and of which two glasses are to be taken, every morning, fasting.

This remedy has been recommended¹ by a celebrated empiric, called John Baptist Zapata; and it has, also, had the approbation of Lewis² Septale. But it is seldom used, unless in virulent gonorrhœas, which are become habitual. And it seems, that this disease should be understood to be meant by the *fluor albus* of which Zapata speaks: or, at least, it is so, that David Spleiss, who has translated his work into Latin,³ and written a comment on it, has taken his meaning to be.

VIII. The decoction of millet in common water, known by the name of Ambrose's decoction, taken as the common drink, in form of a ptisan, and continued for several days. It is a gentle sudorific, or diuretic, which is proper in the cases, where the milky vessels of the *uterus* are too much relaxed: and it is evidently, in these cases, that⁴ Mercurialis have proved the good effects of it, of which he speaks.

IX. Half a dram, or a dram of the conserve⁵ of dead nettle, in Latin *Lamium*, swallowed in the morning fasting. One or two cupfuls of the infusions of the same flowers, in the manner of tea, may be given after it. Ray⁶ approves of this remedy in the *fluor albus*; and it is true, that the dead nettle, in quality of a diuretic plant, is very proper to restore the elasticity of the *uterus*, when it is too much relaxed: as often happens in the *fluor albus* of long standing.

X. The tincture of myrrh, drawn with tartarised spirit of wine, and given in the dose of ten or twelve

¹ Li Maravigliosi Secreti di Medicina e Cirurgia. Cap. 9. *Latinum versa. Ulmæ, 1696. in-8°.*

² Animad. Lib. VII. Animadu. ⁴ De Morbis Mulier. Lib. IV. Cap. 7.

³ Under the title of *Mirabilia, sive Secreta Medico-Chirurgica, . . . ex Italico idiomate in Joh. Bauhinus, Histor. Plantar. Lib. XXVIII. Cap. 119.*

⁵ In Catalogo Plantarum Anglia. drops,

drops, in some proper vehicle, or in a bolus, for some days. Boerhave¹ praises this remedy much in the *fluor albus*; and it is good; but it is still more efficacious, when the tincture is made with Rabel's water, according to the process described in the treatise² on the venereal disease.

XI. Cows milk, with the cream taken off, and chalybeated, in the quantity of six or seven ounces; mixt with four ounces of the depurated juice of cresses; and taking in the morning fasting, for three weeks, or a month, with the usual precautions. It is, at the same time, a diuretic, and sweetning remedy; and proper, consequently, to correct the too great acrimony of the milky juice; and the too great relaxation of the vessels of the *uterus*, designed to contain it.

XII. The powder of the root of dropwort, diluted in a glass of decoction of the wild parsnip, *Pastinaca sylvestris tenuifolia*, C. B. P. This remedy is recommended by Simon³ Paulli, as approved in cases of the *fluor albus*, which are of long standing, and obstinate: and it has gained the approbation of Needham, and Herman Corbeus, cited by Ray⁴.

XIII. The decoction of the flowers of melilot, of which a glass is taken in the morning fasting for some time. It is a remedy proposed by a German physician, of which use may be made without danger.

Remedies proposed for the fluor albus; but suspicious, and even dangerous.

I. Some authors advise, in the *fluor albus*,⁵ camphor in substance, reduced to powder; and given in the proportion of half a dram; or the half⁶ of a nutmeg toast-ed, and powdered. The camphor, or the nutmeg is to be diluted with an ounce and half, or two ounces, of

¹ Chim. Procrissu. 57.

⁶ Wolfgangus Hoeferus, Her-

² De Morbis Venereis. Lib. IV. Cap. 12. p. 534. Second Edition.

⁷ cul. Medie. Lib. VII. Cap. 1.

³ In quadripart. Botanico.

Jean Liebaut, De la Santé,

⁴ Histor. Plantar. Tom. I.

fécondité & Maladies des Femmes.

⁵ Johannes Michaëlis, in not. in Schroderum.

Liv. II. Cap. 35.

⁷ Hieronymus Reusnerus.

Observ. 101.

rose water; or the distilled water of water lily; and it is to be taken, in the morning, fasting, for some days together.

But a blind confidence in these remedies should be avoided. Medicines of this nature, that is, such as are attenuating, aromatic, and spirituous, should never be employed in the *fluor albus*; but with great circumspection: because they are only proper in cases of relaxation of the vessels of the *uterus*; and they cannot be prescribed, even in those cases, with safety, but to women, who are fat, and abound in viscid humours; and, even with them, prudence requires, that they should be in smaller doses than those mentioned.

II. I am not of opinion, that a more favourable judgment should be formed of the *fecula* of briony; which a German physician¹ gave in the dose of a dram, in the following troches.

& Fæculæ Bryoniae, 3j.

Seminis Papaveris albi, 3ij.

Myrrhæ, 3iB.

*Cum Saccharo in aquâ Ceraforum nigrorum soluto. F.
Rotulæ.*

The *fecula* of briony is an emmenagogue, of which the action on the *uterus* is too powerful; and may, consequently, produce bad and even inflammatory repletions in it; particularly in the cases where there is no hopes of exciting the *menses*: and these cases are very numerous in the women, who have the *fluor albus* of long standing.

III. A yet more severe judgment should be passed on the water, broached under the name of *Esculapius's water*, by a² physician, or rather Spanish empiric; who had, however, reputation in his time. To prepare this water, vinegar is put into a cucurbit of copper, tinned on the inside; which is covered with a leaden head; and a distillation is then made in the common manner. The liquor, which comes over sweet, and of

¹ Gothofredus Samuel Polius, *Myrrholog. Sect. IV. Cap. 13.* Artic. 3.

² Giovan Battista Zapata. *Li Maravigliosi Secreti di Medicina e Cirurgia. Cap. 13.*

a golden yellow colour, is the water of Esculapius, in question: of which it is proposed, to give, in the morning fasting, two or three ounces, for several days: and this is boasted as an excellent remedy for several disorders; and particularly the *fluor albus*, when of the longest standing, and most excessive.

But this medicine is too suspicious to be employed without imprudence. It is in fact only distilled vinegar, which is become sweet in taste, and of a golden yellow colour, solely by being charged with many particles of lead, which it has separated from the head, in the distillation. It is to these particles of lead alone, that the virtue, which is attributed to this water, can be ascribed: and it is the lead, which should deter from the use of it: if a little attention be given to what has been said above, page 253, of the danger, there is, in employing internally, solutions, or preparations of lead.

IV. I conceive, I could not dispense with the not taking notice here of some remedies against the *fluor albus*, which are found in a dissertation on this disorder, joined to a treatise, intitled, *Sequel of the Description of the Venereal Disease*; and of declaring freely the judgment, I believe, ought to be made on them. As this dissertation is printed with approbation and privilege; and treats on the subject with the appearance of much confidence; there is room to fear, that it may make some impression on persons, who are ignorant in these matters; and induce them to adopt these remedies, if means be not used to acquaint them of their qualities. This is the first of these pretended remedies.

"Put into an earthen pot, says the author of the
"Dissertation, a pound of good corrosive sublimate,
"and three quarters of the filings of iron; leave the
"earthen vessel in the cellar, taking care to stir the
"contents well every day; and, when the whole
"is dissolved in form of a paste, let the matter be
"thrown into a caldron of water, and the scum taken
"off with an iron spoon, and put on blotting paper,
"in order to separate the fluid from a powder, which
"it

" it will leave ; and which is to be dried, in order to
" be used, every third, or fourth day, in the dose of
" five or six grains, with the same quantity of Aleppo
" scammony. This medicine is to be taken in a spoon-
" ful of sope, and dinner is to be eaten after it, as
" usual ; or it may be taken in the evening before
" supper. Those, who do not like to take it in pow-
" der, may incorporate it in the *confectio-hamec*. This
" medicine is a good dissolvent ; and acts very gently,
" exciting two or three stools."

It is easy to judge, that, in this preparation, the greatest part of the corrosive sublimate is united to the parts of the filings ; and remains strongly combined with them ; in such manner, that the powder, which remains on the blotting paper, contains as much sublimate as filings. In giving six or seven grains of this powder, the quantity is given, therefore, every dose, of about three grains, or three grains and a half, of corrosive sublimate.

V. The second remedy, that is recommended, is, perhaps, yet more dangerous. Nevertheless, *of all those which*, the author pretends, *he had made use of for twenty years*, that he says, *he had occasion to see these kinds of disorders (fluor albus) it is this*, as he assures us, *which has always appeared to him most useful in these diseases.*

" Take half a dram of good corrosive sublimate,
" eighteen grains of red precipitate, eighteen grains
" of *mercurius dulcis*, and half an ounce of crude
" mercury. Triturate well the corrosive subli-
" mate, and the crude mercury, together, in order
" to destroy the corrosive power of the sublimate.
" Add afterwards the red precipitate, and the *mer-*
" *curius dulcis* : and triturate the whole again, to mix
" them all together. Put then gradually to the mass,
" still constantly triturating it, half a dram of the
" mother-of-pearl, half a dram of cinnamon, and five
" drams of Aleppo scammony. Mix the whole to-
" gether, and form the mass into bolusses, with syrup
" of quinces. There may be given of these bolusses,
" from twenty to thirty grains."

If these bolusses be prepared, according to the direction, there ought to be in the quantity of thirty-six grains, which are prescribed as a dose, only twelve grains of syrup of quinces, and the powders must make the remaining twenty-four grains. On this supposition, there would be in each dose, one grain and a third of corrosive sublimate, and two thirds of a grain of red precipitate; as much *mercurius dulcis*; five grains and a third of crude mercury, and thirteen grains and one third of scammony. I question whether the addition of the crude mercury may sufficiently dulcify the corrosive sublimate and the red precipitate, to render the use of such a remedy safe.

VI. In order to promote the effect of this medicine, the author advises, that the following purgative syrup should be alternately given along with the bolusses.

"Take six drams of agaric, and the same quantity
"of fena; boil them together in three pints of water,
"till one third be consumed. Take then a pint of
"*aqua vitae*, a pound of sugar, and six drams of
"Aleppo scammony: and put them together, into
"an earthen pot, over a chafing-dish: and stir them,
"in order that they may be as much burnt as possi-
"ble: let the fluid cool, strain it through a sieve,
"and mix it with the other infusion. This syrup is
"to be given in the dose of from six spoonfuls to
"eight."

Certainly this author does not apprehend the effects of the Aleppo scammony. He puts thirteen grains and a third in substance, into every dose of the bolus, mentioned above, and here he gives eight spoonfuls; that is to say, at least four ounces of a syrup, which contains, on a just calculation, the tincture of twenty-seven or thirty grains of the same scammony, without reckoning the decoction of fena, and the agaric; which enter over and above into this composition. I doubt, whether in a hundred women, who are subject to the *fluor albus*, there would be found two, who could bear the repeated operation of so many, and such purgatives: especially, if they were already weakned

by

by the disease, as always happens in the *fluor albus* of long standing.

VII. This is not all yet. The author pretends, that the use of the following balsam should be added to these medicines.

"Take six pounds of henbane with its root, the same quantity of hounds-tongue with its root, four pounds of the leaves of tobacco, and twenty-five quarts of wine: boil the whole together five or six hours; and then take out the herbs, and roots. Strain off the fluid; and, having put it into another vessel, add to it five quarts of good virgin oil. Boil the whole together, till the oil and wine no longer simmer. Then let it cool; and pour off the fluid gently. There are some, who, in giving the balsases, *N^o V*, and alternatively a dose of the purgative syrup, *N^o VI*, order to be taken, in the intervening days, when the purgatives are omitted, a spoonful or two of this balsam; which, added be, I have myself very often done."

It seems as if this author had endeavoured to collect every thing that is most to be suspected in the *materia medica*. To the internal use of corrosive sublimate, which no person has dared to employ, he adds here a strong decoction of henbane, and tobacco; that is to say, of two plants, of which the internal use is esteemed to be highly dangerous.

VIII. There is found, in this treatise, a letter from a learned person, whom he does not name: but whom, he says, a knowledge in natural philosophy and anatomy have rendered distinguished. This anonymous learned person, whoever he may be, resembles much the author. At least, he follows the same principles; and pretends, that corrosive sublimate is an internal specific for the *scrophula*: and, not to dwell on what does not relate to our proper subject the advises, in the *fluor albus*, to make injections into the *vagina*, with the *lac mercurii* of the *Pharmacopeia* of Baltus. It is true, he desires, that this remedy should be weakened, by putting four ounces of fluid, on each dram of the corrosive

corrosive sublimate but, he adds, that it is surprising, in how little time these virulent discharges will be stopped by it.

The *lac mercurii*, of which the author speaks, is described in Bates's Dispensatory : which he means by the *Pharmacopeia of Balneis*. According to Bates, to make this *lac*, six drams of corrosive sublimate must be dissolved in twelve ounces of water of fumitory ; which is in the proportion of 'a dram to two ounces.' Bates observes nothing of the use of this *lac* : but is satisfied with referring to what he has said elsewhere on the use of mercurial water : but, in the article of this water, he mentions, that it is good for pimples, pustulas, and redness of the face ; *Ad faciei ruborem, pustulas, &c. curanda, certissima aqua.* He does not ascribe any internal use to it : and with regard to external application, he even takes notice, that the skin should be only touched, in a very slight manner, with drops of this water ; and that they should be immediately wiped off with a piece of linnen. *Tange loca sèpè cum guttula minutissima statim exsiccando cum linteo.* Concerning which it is to be observed, that this mercurial water, of which Bates speaks, is only composed of two drams of corrosive sublimate, dissolved in one pound of an emulsion, made with the decoction of lily roots ; that is to say, it is twice as weak as the *lac mercurii* of the anonymous author. Nevertheless, Bates, who knew the nature of this water, proposes it only as a cosmetic, for external use ; and directs, that places of the skin, which are affected, should be only touched with very small drops ; and that care should be taken to wipe them off immediately. How then has the learned anonymous person, who seems to have taken Bates for his guide, had the temerity to propose to inject into the body, and in parts so delicate as the *uterus* and the *vagina*, syringefuls of the solution of corrosive sublimate, twice as

* Bates puts only two ounces of water of fumitory to each dram of corrosive sublimate, to make his *lac mercurii*.

strong as the mercurial water of Bates ; and, consequently, twice as caustic.

IX. Dr. Morgan, an English physician, assures¹ us, "that the tincture of *cantbarides*, given in a strong decoction of *guaiacum*, is serviceable in the *fluor albus*, when it is recent : but that when it is of long standing, recourse must be had to mercurial remedies."

It is certain, that this tincture has been proposed for virulent *gonorrhœas* by some authors : as has been said in the treatise *De Morbis Venereis*, Tom. I. p. 272 and 499 : and there is room to believe, that Dr. Morgan only proposes it for the *fluor albus*, because he confounds that disorder with a virulent *gonorrhœa*: as he seems to explain, in advising the use of mercurial remedies in the *fluor albus*, when it is of long standing. But if that be the case, he has fallen into two errors ; the one, in supposing, that the *fluor albus* does not differ from the venereal disease : for it is very certain, that they are different : the other of course in supposing, that the tincture of *cantbarides* is proper, as well in a virulent *gonorrhœa*, as in the *fluor albus* : for it has been remarked, in the place of the book before cited, that the use of this tincture was not only to be suspected, but that it was even dangerous in a virulent *gonorrhœa* : and this remark holds good, in a yet stronger degree, with relation to the *fluor albus*.

¹ *The Mechanical Practice of Physick*, translated into French Physick. Lond. 1735. in-8°. by M. Demours, doctor of

See the *Essais & Observations physiques*, Tom. IV. pag. 629.

de Médecine de la Société d'Edim-

C H A P. XI.

Of the cessation of the menses; and the accidents which it may bring on.

§. I. DESCRIPTION.

THE *menses*, which do not begin till a certain age, cease in the same manner at a certain period: and as the time, when they begin, is not always the same; so that, when they cease, varies also in different subjects, different constitutions, different countries, and different circumstances: but in general, the women begin to be irregular, and to lose them, about the forty-fifth, or the fiftieth year of their age.

Sometimes the *menses* cease all of a sudden, without there having preceded any sign of their diminution: which is however rare. Sometimes they cease gradually; that is to say, they become at first less copious; grow slower afterwards; fail after that once or twice; then re-appear again; and, at last, cease intirely. Sometimes these variations only last for a short time: and sometimes they continue for six months, a year, or two years.

In some women, the *menses* cease without any accident, or with such as are so slight, that they do not merit any attention. In others, the cessation brings on very strong hysterick fits. In some there happen floodings, that are long, obstinate, and dangerous. In others a *fluor albus*, which is difficult of cure, is left.

Lastly, there are women, who, in losing their *menses*, are subject, at the same time, or at least successively, to several of these accidents; but differently combined: that is to say, some have hysterick fits, and floodings: others floodings, and the *fluor albus*: and others the *fluor albus*, and hysterick fits. There are also instances

instances of those, who even have them all, sometimes successively, and sometimes together.

§. II. CAUSES AND SYMPTOMS.

It is a constant property of the elastic fibres of all the solid parts of the body, to grow hard, and callous with age. This occasions the loss, in advanced years, of the fine colour of the skin, and the freshness and delicacy of the complexion: and it is from thence, the wrinkles, dryness, and callosity of aged persons proceed. In short, this is the principle of the changes, which show, and accompany old age.

The fibres of the *uterus*, and the coats of all the vessels which supply it, are liable to the same changes: and even if this principle were not so general, there would be reason to admit it with relation to the *uterus*, from the instance of the breasts; which have an evident correspondence with it, as well in structure, as in its functions: and which, as is known, sink and fade in women, about the forty-fifth, or fiftieth year of their age.

It may, therefore, be regarded, as a constant fact, that about the forty-fifth, or fiftieth year, the *uterus* closes itself, and contracts; that the lactiferous vessels sink, grow less, and can no longer receive the milky humour, which they before separated; that the venous *appendices* close in the same manner, not being capable of opening, either to receive the blood, which is turned from them, or to suffer it to be evacuated into the cavity of the *uterus*; and, therefore, that the *apparatus*, or necessary mechanism for menstruation, on the part of the *uterus*, such as is explained above, Chapter II, is then intirely wanting.

For this reason, the *menses* must naturally cease about the forty-fifth, or fiftieth year, by a natural consequence of the changes which age produces in the lactiferous vessels, and veinous *appendices* of the uterus. Though these changes are numerous, and may happen in different manners, and with different circumstances, as it is easy to judge by the variations, that have been

remarked in the accidents, which precede, or accompany the cessation of the *menses*, in different subjects, they may, nevertheless, be easily referred to four classes, or principal states.

First state of the uterus.

In this state, the lactiferous vessels, being closed, do not permit, or but in a small degree, the entrance of the milky humour; are not, or but in a small degree, filled with this humour: do not, or but in a small degree, compress the neighbouring uterine veins; and do not, or but in a small degree, turn the blood into the venous *appendices*: while, at the same time, these *appendices*, on one hand, weakly dilated by the small proportion of blood which passes into them; and, on the other, too much closed by the elasticity of their fibres; open but in a minute degree; or not at all: which occasions, that the *menses*, after having diminished for some time, cease at last intirely.

In this state, 1°. Sometimes the period of the *menses* maintains itself; but the quantity diminishes. The period of the *menses* maintains itself, because the lactiferous vessels of the *uterus* are yet sufficiently dilatable, to permit the entrance of the milky humour, and, by this means, to tumefy yet sufficiently to procure the regular return of them, in the space of a month. But, at the same time, the quantity of them is diminished; because the venous *appendices*, being closer, resist more to their dilatation; and only open imperfectly.

2°. Sometimes, in the reverse of the first case, the quantity of the *menses* is maintained, but the period becomes longer. The quantity is maintained; because the venous *appendices* are still sufficiently open for the common discharge of the *menses*, but the period becomes more long: because the lactiferous vessels, which are more dense, admit with more difficulty the entrance of the milky humour: and have need, for this reason, of a longer space of time to be sufficiently full.

3°. Some

3°. Sometimes the quantity of the *menses* diminish, and the returns grow more distant; which implies the presence of both the two preceding cases: and this affords a proof, that the lactiferous vessels, being too much closed, have more difficulty in dilating themselves; and that the venous *appendices* have, at the same time, more repugnance to open.

4°. There are women, with whom the *menses* gradually diminish, and the intervals grow longer, little by little, and uniformly; and there are others, in whom these diminutions, and intervals, vary irregularly. In the first case, the closing of the lactiferous vessels, and the venous *appendices* of the *uterus*, augments proportionally; and the blood preserves an uniform motion: whereas, in the other, the venous *appendices* close themselves unequally, through the effect of some foreign cause: or, at least, the blood is agitated by some irregular motion.

5°. In some women, the cessation of the *menses* is protracted to six months, a year, two years, &c: because this time is necessary, in order that the vessels of the *uterus* close itself sufficiently; and this is common in women of a sanguine or phlegmatic constitution; and for the most part the best: because nature has, by that means, more time to habituate itself to the cessation of the *menses*.

6°. In other women, the *menses* cease more quickly; which happens in those of a bilious or melancholic constitution; and frequently brings on them bad accidents: because the *menses* being too suddenly supprest, the body finds itself loaded with a troublesome *plethora*.

7°. When the *menses* cease by a cotemporaneous, and proportionable closing of the lactiferous vessels, and venous *appendices* of the *uterus*; or, at least, such as is moderately uniform and equal, there is no accident to be feared, with respect to the *uterus*: because it does not occasion repletion. The most that happen is, 1°. Some disgust to food; or some desire for odd things; when the milky humours abound in the blood; and are mixt with the *saliva*, or the leaven

of the stomach. 2°. Some pains in the head, and some sense of choaking; when the blood, retained by too quick a cessation, overloads the vessels of the head, and lungs; and produces there a *plethora*.

This first state happens in the women, in whom the *uterus* is in a natural state, well formed, and exempt from any fault.

In whom all the vessels, all the coats, and all the fibres of the *uterus* have an elasticity nearly equal.

In whom the *menses* cease of themselves, by the mere course of nature, without any fortuitous or foreign cause.

And in whom, consequently, the lactiferous vessels, and the veinous *appendices* of the *uterus*, close themselves by their own elasticity, and grow narrower uniformly and proportionably.

Second state of the uterus.

In the second state, the lactiferous vessels of the *uterus* being yet sufficiently supple, permit the entrance of the milky humour; tumefy; compress the neighbouring veins; and, stopping the blood there, force it to turn off into the veinous *appendices*, which grow full with it: but the orifices of these lactiferous vessels, as well as those of the veinous *appendices*, resist opening; because they are more close; which occasions the vessels to swell in vain, and prevents the *menses* from appearing; although, in other respects, every thing seems to be properly disposed for it.

In this state, 1°. The women feel the approach of the *menses*, as if they were going to appear; as the lactiferous vessels, and blood-vessels of the *uterus*, tumefy, as in the time of common menstruation.

2°. The inconveniencies, which precede, or accompany the *menses*, are then more long, more obstinate, and sometimes more strong, than in the natural state: because the vessels not being capable of emptying themselves, remain tumefied a longer time; and sometimes even in a greater degree than commonly.

3°. When

3°. When the sensations raised in such case in the *uterus* are very great, and lively, they bring on the true hysterical vapours: or, at least, the accidents which belong to them; as redness, and heat, which often rise suddenly into the face, and end in momentary sweats; convulsive choakings; strangulations of the breast; contractions of the *diaphragm*; creeping in the bowels; involuntary crying, or laughing; &c.

4°. These accidents diminish gradually, and become insensibly more weak, and rare; because the lactiferous vessels, and the venous *appendices*, constantly grow more close; and yield every month less to the dilatation: which occasions them to be less replete. It happens, nevertheless, frequently, that these accidents continue for a year or two, though not with the same violence.

This second state is common to women, who have the orifices of the lactiferous vessels, and the venous *appendices*, naturally more close and dense, than the lactiferous vessels, and the venous *appendices* themselves.

To the women, in whom the internal coat of the *uterus* is too firm, and nervous; and in whom, consequently, it closes too straitly the orifices of the lactiferous vessels and venous *appendices*, which it embraces, and passes across.

Especially in the women, who have never had children, or but few; and in whom, for this reason, the lactiferous vessels, and the venous *appendices*, have been less dilated; and have remained, consequently, less dilatable.

Third state of the uterus.

In this third state, the lactiferous vessels are full of milky humour; because they are yet sufficiently supple to admit of being dilated: but they do not empty themselves; because their orifices, being more closed, resist being opened. By this means, the vessels, being too full, compress the neighbouring veins; stop the course of circulation in them; turn the blood into the

veinous *appendices*; and force them to open a passage into the *uterus*: which produces a flooding, sometimes more copious, and sometimes less.

In this state, 1°. The flooding is constant, and obstinate; because the lactiferous vessels, which remain full, always compress the veins; and turn the blood from them into the veinous *appendices*; which are, by this means, compelled to remain open.

2°. The flooding is not only obstinate, but it increases periodically every month; because the lactiferous vessels, which tumefy more periodically every month, compress, at that time, the veins more strongly; and obstruct more, in them, the direct course of the blood, which is forced to turn off more abundantly into the veinous *appendices*.

3°. The tension, which the tonic tumefaction of the lactiferous vessel causes in the coats of the *uterus*, brings on often accidents of the hysterical vapours: such as those, which have been spoken of in *the second state of the uterus*, n° 3.

4°. Although these floodings are obstinate, they cease at last of themselves; because the lactiferous vessels diminish gradually; and being diminished, resist the entrance of the milky humour, with which they no longer become full; and therefore do not compress any longer the veins; nor obstruct the circulation of the blood.

5°. But these floodings, in ceasing often, leave a lymphatic *fluor albus*; which comes from the slight divisions or choppings, that remain at the extremities of the veinous *appendices*, even after they have been closed: and from whence the lymph is discharged, till they be perfectly consolidated.

6°. Sometimes these floodings even degenerate into ulcers of the *uterus*; when the divisions, or choppings, of the orifices of the veinous *appendices* come to suppurate; and the suppuration is acrid and corrosive.

This third state is common in women, with whom the orifices of the veinous *appendices* are more lax, than those of the lactiferous vessels.

In

In women, with whom there are in the *uterus* places naturally more weak ; and where the veins, and particularly the veinous *appendices*, are varicous.

In the women, who have been often delivered, or who have had long, laborious, and difficult labours ; and in whom the veinous *appendices* have been often relaxed and torn ; and the *uterus* even unequally weakned in places, where the *placenta* has adhered.

Lastly, in women, who in the first or second state of the natural cessation of the *menses* above described, have been let blood in the foot imprudently, to bring back the *menses*, as if they had been suppress'd by disease.

Fourth state of the uterus.

In this last state, the lactiferous vessels of the *uterus* continue to receive the milky humour ; but, in receiving it, suffer it to be discharged into the *uterus* ; through their orifices, which remain open, and dilated ; or which are easily dilatable. On which account, they do not tumefy, compress the veins, obstruct the course of the blood, turn it into the veinous *appendices*, force them to open ; or, in short, cause the eruption of the *menses*.

In this state, 1°. The women have no discharge of blood ; but they are subject to a constant *fluor albus*, which augments periodically every month, in the time of the *menses* ; because at that time the milky humour is separated more copiously.

2°. As the vessels of the *uterus* do not tumefy, nor act on the coats of the *uterus*, the women are not exposed in this state to any accident of the hysterical vapours ; but they fall into a wasting of flesh, and *marasmus*, by the continuance of the *fluor albus*.

3°. Sometimes the disorder even degenerates into an ulcer of the *uterus* : when the milky humour, in consequence of being discharged, relaxes, and at last erodes the orifices of the lactiferous vessels ; and even sometimes the interior surface of the *uterus* ; particularly

larly in women with whom this humour is acrid, and corrosive.

4°. Notwithstanding which, provided the women be naturally healthful, and manage themselves well, it often happens, that this discharge ceases gradually, in proportion as the *uterus*, and the lactiferous vessels, close themselves.

This state happens commonly in women of a phlegmatic and viscid constitution, who have been subject to a constant *fluor albus*; and in whom the orifices of the vessels are greatly relaxed.

In women, who have the texture of the *uterus*, and particularly that of its interior coat, too lax, either by natural conformation: or by the disorders which preceding pregnancies have caused in the part.

Lastly, in the women, with whom aperitives and emmenagogues have been improperly employed to bring back the *menses*, which have ceased naturally; and of which the cessation has been mistaken for a suppression.

Compound states of the uterus.

To the four simple states, which have been explained, several other compound states must be added, which result from the combination of the simple states, at least of the three last, when they concur at the same time, and in the same patient, although in different parts of the *uterus*. But after what has been said of the simple states, it is sufficient to enumerate these compound states in a few words; and to mention the principal symptoms of them.

Thus, 1°. When the second and third states concur together, the women are exposed to all the symptoms of these two states; that is to say, they have the hysterical vapours, as in the second state; and floodings, as in the third.

2°. In the concurrence of the second and fourth states, the women have hysterical vapours, and the milky *fluor albus*; that is to say, the symptoms of those states.

3°. When

3°. When the third state concurs with the fourth, the women have discharges of blood, and the *fluor albus*, either milky, or lymphatic; which cannot be distinguished, when they happen together, and the discharge of blood is copious; but which may be easily distinguished, as soon as the discharge of blood ceases, or diminishes.

4°. Lastly, in the concurrence of the second, third, and fourth states, which is very rare, though not impossible, the women are exposed, at the same time, to hysterical vapours, discharges of blood, and the *fluor albus*; that is to say, to all the symptoms which are proper to each of these three states simply.

These different compound states happen, when the causes, which give rise to the simple states, concur together, and act at the same time upon different places of the *uterus*: and, in order to judge of them, nothing more is required than to weigh the degree of affinity, which the different causes of the simple states of the *uterus* may have; and to deduce from thence the different cases of possible combination, which may result from them.

§. III. DIAGNOSTIC.

I. The diagnostic of the cessation of the *menses* is confined, to the distinguishing the cessation which age brings on from the suppression of the *menses*, from that which is owing to disease, and from the suppression, in consequence of pregnancy, with which it may be confounded.

1°. It is distinguished from the suppression, owing to disease, 1°. Because the natural cessation happens only about the forty-fifth, or fiftieth year; whereas, the suppressions happen at all ages. 2°. Because the cessation scarcely ever happens suddenly, but gradually, and with intervals: whereas, the suppressions are commonly sudden, and absolute. 3°. Because the cessation is generally without accident, or with such only as are slight: whereas suppressions have generally worse consequences.

When

When women are ingenuous, with respect to their age ; when all these signs ; or, at least, several, concur together ; and when it is known, how to form a right judgment of them, there can scarcely remain any uncertainty, with respect to the nature, and cause of the cessation of the *menses*. There is no case, where the uncertainty will continue long ; and the consequences not evince in a month or two, whether the cessation ought to be ascribed to the simple course of nature ; the bringing on the termination of the *menses* ; or to the effect of some accidental cause, which stops the *menses* against natural order.

2°. It is not easy, to distinguish the natural cessation of the *menses* from the suppression of pregnancy ; and accordingly the women often deceive themselves with respect to this matter. Those who have no children ; who wish to have some ; and who approach their forty-fifth, or fiftieth year ; mistake for pregnancy all the cessations of the *menses* which happen to them, from time to time ; and which forerun the absolute cessation. On the contrary, those, who have had several children, and who are unwilling to have more, mistake, the natural cessation of the *menses*, for real pregnancies.

It is well known, indeed, that, in general, women have disgusts, odd longings, pains, heart-burn, disposition to vomit, and even frequent vomitings, from the first month of pregnancy ; that the breasts become then more hard, full, and firm, and the belly, on the contrary, more flat, and sunk, &c ; but it is also known, that these accidents, or at least such as approach to them, happen sometimes in the natural cessation of the *menses*, when it is sudden, and laborious : and this authorizes, or confirms the doubt : nevertheless, this uncertainty, whatever delusion they endeavour to lead themselves into, cannot continue a long time ; and the fourth or the fifth month will afford certain information. For then they will either feel the child more ; and, in that case, the reality of the pregnancy can no longer be disputed ; or, if no motion

motion of the child be felt, it must be allowed, there is no pregnancy ; but that the *menses* have ceased naturally.

Fortunately the doubt cannot subsist, either in this, or the preceding case, more than some months : nor be injurious to the patients. The natural cessation of the *menses* scarcely requires any medicines : nothing more is necessary, than to bleed sometimes in the foot, and to give some stomachics. But these remedies are proper both for the suppression of the *menses* by disease, and by pregnancy. Pregnancy indeed never requires any other : and as to suppressions, which have generally need of more active remedies, such as purgatives, and aperitives, the use of them may be deferred for some months without danger, till time has been had to be informed of the true cause, which occasions the failure of the *menses*.

II. The diagnostic of the different kinds of cessation of the *menses*, whether simple, or compound, is evident ; and in order to confirm it, there is nothing requisite, but the questioning the patients.

1°. The first and most natural kind of cessation, is when there is neither swelling, tension, nor pain in the *uterus* ; and when it does not bring on any accident, or such only as slight *plethora*s, and the *chlorosis*.

2°. The second kind of cessation is, when the periodical disposition of the *menses* is shewn every month, by the tumefaction, tension, and pain of the *uterus* ; by the greatest part of the accidents of the *chlorosis* ; and, what is yet more strong, by hysterical fits.

3°. The third kind of cessation is, when periodical floodings, which sometimes, in consequence of continuing, become constant ; and are generally accompanied with hysterical vapours, disgusts, and odd likings.

4°. The fourth kind of cessation is, when the women are exposed to an obstinate and constant *fluer albus*, which increases periodically, and brings on at length, if neglected, weakness, and *marasmus*.

5°. Lastly, there are compound kinds of cessation, when the symptoms, which happen, belong to several

of

of the simple kinds ; and form new combinations, which may vary in different manners.

III. The diagnostic of the different states of the *uterus*, and of its vessels, in the cessation of the *menses*, must be deduced from the nature, and kind of each cessation, according to the theory, which has been proposed.

Thus, in the first kind of cessation, it may be taken for granted, that the lactiferous vessels, and the veinous *appendices* of the *uterus*, close themselves equally, and uniformly ; and resist, at the same time, to the entrance of the milky humour and blood.

In the second kind, it is evident, that the lactiferous vessels, and veinous *appendices*, still dilate, and receive as usually the milky humour and blood : but that their orifices, being too much closed, resist constantly to their passage out.

In the third, every thing is in the same condition, as in the second ; except that the orifices of the veinous *appendices* yield at last ; open, or are lacerated ; and suffer the blood to be copiously discharged into the *uterus*.

In the fourth, the orifices of the lactiferous vessels open, and suffer all the milky humour, which passes into them, to escape into the *uterus* : which causes an obstinate *fluor albus*.

Lastly, in the kinds of cessation, the most compound, the nature and the qualities of the accidents which accompany them, are sufficient to indicate the most compound states of the lactiferous vessels, and veinous *appendices* of the *uterus*.

§. IV. PROGNOSTIC.

I. The cessation of the *menses* about the forty-fifth or fiftieth year, is a disposition of nature, or a necessary consequence of the construction of the body ; and particularly the *uterus* ; and, of course, cannot be regarded as dangerous in itself. All the hazard, which attends it, arises always, either from its happening too soon, or from its happening with accidents.

II. The cessation happens too soon, when it happens at thirty, thirty-five, or forty years; or when it happens even at forty-five, or fifty, through any casualty; as some fright, vexation, miscarriage, &c.

In this case, the cessation is never free from danger, either because there is room to fear, that the lactiferous vessels, and the venous appendices of the *uterus*, will not be closed, and diminished, equally, and uniformly; or because the milky juice, which abounds not only in the case of a premature cessation, but in such as is sudden, may bring on bad accidents.

III. The cessation happens with accidents, when it brings on violent vapours, causes considerable floodings; and leaves after it a constant *fluor albus*; or appears to threaten the *uterus* with some repletion, *schirrus*, cancer, or ulcer; &c. In all these cases, the greatness of the danger may be judged of by the nature, number, and violence of these accidents, which make the prognostic almost infinitely various.

IV. It is by these accidents, which are peculiar to each kind of cessation of the *menses*, and which attend them, that the prognostic belonging to each kind must be regulated.

Thus, 1°. As in the first kind of cessation, there being no accident, with respect to the *uterus*, every thing is confined to the consequences of a *chlorosis*, and *plethora*, which may be easily corrected; and as the patients are not even exposed to hysterical fits; at least, not to such as are very great; this kind is not attended with any danger, or, at most, only with such as is very slight.

2°. As in the second kind of cessation, the patients have, to a very great degree, all the accidents of a *chlorosis*, and *plethora*; and are exposed to hysterical vapours, which harass and alarm yet more; as there is reason to fear every moment, an uterine *haemorrhage*, or a copious *fluor albus*; and, as it often happens, that this kind of cessation leaves obstinate repletions, or *schirrous* obstructions in the *uterus*; it is easy to judge,

judge, this kind of cessation must be much more dangerous than the preceding.

3°. As in the third kind of cessation, there are all the accidents of the *chlorosis*, *plethora*, and hysterical fits; and these accidents, when they are long and obstinate, frequently produce *schirrusses*, and obstructions in the *uterus*: and as there is, moreover, in this cessation, a constant flooding, which is always followed with a considerable loss of strength, and often brings on an ulcer or cancer of the *uterus*; this kind of cessation must be regarded as still more dangerous than the two former.

4°. In the fourth kind of cessation, the constant and obstinate *fluor albus*, which is proper to it, threatens a consumption, and slow fever; and even an ulcer, and cancer of the *uterus*. In this kind of cessation, therefore, the danger is scarcely less great than in the third.

5°. With regard to the more compound kinds of cessation of the *menses*, the danger must be estimated by the number, nature, and violence, of the symptoms, which accompany them; or by the nature of the diseases, which they may bring on.

§. V. Method of cure.

The manner of treating the accidents, which happen in the cessation of the *menses*, does not differ from that of treating the same accident in other cases. Thus *Chapter XIII. of Book II. of the hysterical passions, or vapours*, may be consulted for the cure of the accidents, relating to the hysterical affections, which are common in the second kind of cessation: *Chapter IX. of this book, of the excessive menses*, for the cure of the flooding, which may happen in the third kind: and *Chapter X. of the same book, concerning the fluor albus*, for the cure of the *fluor albus*, which is peculiar to the third kind: and in all these several cases, recourse must be had to the treatment proposed in these chapters, observing all the precautions which are there directed.

By

By this means, the method of cure, belonging to this Chapter, is reduced to the manner of treating the first kind of cessation of the *menses*; or, to speak more properly, to the manner of preventing the accidents in the women, who begin to lose the *menses*; or remedying them, when they are moderate; do not constitute particular diseases, and are only slight symptoms of hysterics, *plethora*, or the *chlorosis*.

In general, when the women have reason to believe they are beginning to lose the *menses*, they should, if they be prudent, take care of their health with the greatest precaution: and this is doubly necessary, if the state of the *uterus*, or the blood, give any room to apprehend any bad consequence from the cessation.

To this end, 1°. It is proper to bleed often, for at least a year; and sometimes for two; in order to diminish the volume of the blood, which regurgitates in the vessels; and this should be always in the foot, to derive the blood from the *uterus*. It is difficult to make any precise determination, with relation to the number of bleedings: because there are women, who require to be let blood every month, and others, for whom twice a year is sufficient. But commonly the bleeding should be repeated from three months, to three months; and even sometimes from two months, to two months; according to the habit, and the manner of living of the women, who lose the *menses*.

2°. It is proper to prescribe an exact regimen; as well for the quantity, as the quality of the food. For the quantity, in order that the women, by eating less, may make less blood, and less milky humour. For the quantity, that, by taking food which is light, aqueous, and not too nutritive, such blood and milky humour may be produced, as is less thick, and capable of being obstructed in the vessels of the *uterus*.

3°. It is necessary to purge from time to time, with gentle purgatives, such as tamarinds, manna, cassia, rhubarb, the vegetable salt, Epsom salt, &c. in order to cleanse the first passages; and carry off, by the salts,

a part of the chyle, which forms the milky humour in the blood.

4°. It is proper, in all cases, to put them in a daily course of simple remedies, with warm water, or the decoction of mugwort, motherwort, or melilot, &c. There may be added, two ounces of oil of sweet almonds, or an ounce of fine canticum; or an ounce of the pulp of cassia; if the belly be not loose. But if the patient be troubled with wind, there may be an ounce of bays; or a glyster may be given with a decoction of bay-berries.

5°. It is proper to make the patients take daily, or at least, frequently, slight diuretics, in order to cause the milky humour to be discharged by urine: such are the infusions of maiden-hair, tea, sage, balm, the vulnerary herbs of Switzerland; or slight decoctions of chervil, motherwort, mugwort, &c.; and such, also, are the cooling and diuretic mineral waters; as those of Forges, Passe, &c.

6°. It is proper even to employ diuretics still more efficacious, in case the accidents should be more strong; and, in this view, there may be added to the infusions and decoctions, a dram, or a dram and a half, every day, of *sal mirabilis Glauberi*, *arcanium duplicatum*, and *sal prunellæ*, or tartar vitriolate; or even to pass these infusions, or decoctions, over twenty *millepedes* pounded, and reduced to paste.

Lastly, if the hysterick fits be frequent, and momentous, it is proper to make the patients take small spoonfuls of anti-hysterick potions, composed of distilled waters of the three nuts, black cherries, or flowers of the lime-tree; or there may be added to four ounces, twenty, or thirty drops of tincture of myrrh, and the same quantity of tincture of castor; or some grains of *assa foetida*, may even be dissolved in it; or some drops of anodyne tincture mixt, if the accidents of the disorder be strong, and attended with convulsions, or convulsive symptoms.

*Necessary precautions in the treatment of women
who are losing their menses.*

I. It is always proper to avoid bleeding in the foot, at the time of losing the *menses*: because it derives the blood into the ramifications of the *aorta descendens*; which surcharges the vessels of the *uterus* that come from it; augments the tumefaction and the tension of the *uterus*; aggravates the accidents of the hysterical disorder; and even often causes uterine haemorrhages.

II. For the same reason, all use of emmenagogues, dissolvents, aperitives, and thermal waters, should be avoided: because it is by no means proper to endeavour to bring back the *menses*; which it is fit should cease. When this conduct is not pursued, all that is done, far from relieving the patient, tends commonly only to increase the disorder; and to bring on floodings that are difficult to be cured.

III. It is not sufficient to diminish the quantity of food; but it is farther necessary, as has been already remarked, to forbid all kind of diet, which may furnish a nourishment too succulent; and which may produce a chyle too oily, and thick: such are beef, mutton, partridges, too nourishing preparations of rice, too strong broths, gelatinous soups, milk, chocolate, &c.

IV. From the same principle, it is necessary to shun every thing which may heat, or agitate the blood; and consequently make it rarefy; because rarefaction produces nearly the same effects, as *plethora*, in the vessels of the *uterus*. On this account, women ought to be forbid, at this time, sitting up all night, too lively passions, too great exercise, the use of spirituous liquors, and even of wine, unless in a very moderate degree; as, also, of coffee, and chocolate, particularly made with vanelloes; &c.

V. As coition puts the fibres of the *uterus* into strong, and tonic contractions, which, by turning the course of the blood, oblige it to stagnate in the vessels, and venous appendices of the *uterus*; and

force them to open ; the use of it, especially if frequent, cannot but be injurious in the cessations of the *menses*, which are laborious ; and especially in those, which are attended with floodings.

VI. If the women are subject to any constitutional infirmity, whatever it may be, or whatever part of the body may be affected by it, they must expect to see it renewed, or augmented at the time of losing the *menses* : and it is material to apprise them of it before hand, that they may be less alarmed, and submit more willingly to the remedies, which are prescribed, and the regimen which is directed.

VII. In general, it were to be wished, the change should be made quickly, provided it be made without accidents, as happens in the women of good constitution, and in whom the *uterus* preserves an equal elasticity, in all its parts. But when the cessation is laborious, or accompanied with any accident of consequence, it is advantageous, that it should be made slowly, and gradually, in order that the vessels of the *uterus* should have time to close themselves equally, and that nature may habituate herself to the want of the *menses* ; at least, nothing should be done, which may urge forwards the dispositions of nature, and force the vessels of the *uterus* to irregular closings, capable of bringing on repletions.

VIII. When more compound cases offer, in the cessation of the *menses* ; in which floodings, a *fluor albus*, repletions in the *uterus*, and uterine colics, hysterick disorders, &c. sometimes happen, it is proper to weigh and estimate the causes and danger of these accidents ; and to resolve, either to endeavour to overcome them one after another, by beginning with the most dangerous, or the most urgent ; or all at the same time, by conjoining, if that be practicable, the different remedies, which are proper for each accident in particular.

IX. Lastly, it is proper to be apprehensive of the *menses* which persevere after fifty years. I have seen women, who had passed that age, and boasted of having

having their *menses* still, as young women. But, on examining them, I always found that those *menses* were a true state of disease; and arose either from some exulceration, or repletion of the *uterus*; or from some varicous disposition of its veins: and the greatest part of these women, with whom the *menses* lasted so long, were carried off by cancers, or ulcers of the *uterus*.

It is much the same with the girls, who are said to have the *menses* when they are nine or ten years old, and who have really periodical discharges at that age. It is almost always the effect of some fault in the *uterus* or the *vagina*, which must be cured by repeated bleedings, and the use of cooling broths, or whey; or asses milk, and half baths. So much is it true, that nature, variable, as she appears in the particulars of the circumstances, is more constant than is believed, with respect to the essential rules of the animal cconomy.

C H A P. XII.

Of the furor uterinus, or Μητροπανία.

THE furor uterinus is a disease, which is shameful, and offensive to modesty; but, happily, it is rare: though not to such a degree, as that it should be struck out of the number of diseases incident to women; or omitted by physicians, who undertake to treat of them: which has for the most part been done, as will appear below. I have, therefore, thought it a necessary part of this work.

§. I. DESCRIPTION.

The *furor uterinus*, in Greek Μητροπανία, never comes on suddenly; but, with an imperceptible progres, gains ground by slow degrees, in the following manner.

I. It sometimes happens, that virgins, ripe for the embraces of men, if they be excessively enamoured of any lover whom they cannot have; that girls habituated to venereal prostitution, by which they are unwillingly warmed; that married women, who are coupled with impotent, or old men; and that young widows, who are deprived of able and vigorous husbands, to whom they had been accustomed; have intense, strong, frequent, and even continual lustful thoughts: which are constantly augmented by reading romances, fraught not only with tender, but lascivious images of love that they impart; repeating lewd verses; talking very often with their companions of venereal enjoyments; exciting themselves, by wanton touches, with their fingers, or suffering it to be done by others; listening readily to the fond and incentive speeches of men; eating dishes that are salt, spicy, and acrid; and using, or rather abusing, rich wines, spirituous liquors, coffee, and chocolate: all which, increasing the acrimony of the blood, inflame venereal desires.

These circumstances are, in the beginning, of little consequence; but if they continue, they grow momentous. Their thoughts remain fixed on the same object continually, from which they cannot be diverted; every thing gives way to it, and nothing else is perceived or attended to. Sad and pensive, they keep silent, or mutter to themselves; carefully dissembling, and concealing, to the utmost of their power, the lust with which they burn. But if any handsome young man, or, indeed, any man whatever, come in their way, they eagerly view him with lascivious looks; and, if he says any thing careless, as is usual, they greedily hear it; smile pleasantly; evince their inclination by expressive gesture; take in serious meaning what is only said in joke; and yield not only to the most faint attack, but even, on their own side, make advances.

II. The disease, already too great, gains ground every day. Stimulated with a boundless and raging desire

desire of venery, and losing all sense of shame, they utter things expressive of the greatest lewdness ; openly declare themselves ; and laying aside every degree of modesty, their reason being depraved, they incite all they meet, either acquaintance or strangers, to their embraces, by the most impudent and vile words. If they find any hesitation made, they allure by voice and gesture : and if they meet with an obstinate refusal, they scold loudly in opprobrious language, and endeavour, as much as they can, to fight, with their fists, those who provoke them by their non-compliance.

III. Hitherto this disease, though considerable, restrains itself within the bounds of melancholy *delirium*: but in a short time it bursts out into a raging madness. Distracted to the last degree, they roar and talk the most absurd things : endeavour to excite the lust of bystanders, by motions, gestures, and words. Sometimes, in order to incite more effectually, they pull off their cloaths, and show themselves naked : and they throw themselves with fury on those, who are unwilling, or unable. They evidently rave in speaking of many things, if not of all. They have at the same time all the symptoms which commonly attend madness : as *agrypnia*; *anorexia*; heat all over the body; patience of cold; absence of thirst, while they burn with heat; blackness of the stools; and urine that is thick, small in quantity, saffron coloured, clayey, &c.

It must not, however, be imagined, that all these symptoms are found together in every patient, or even in any at the same time ; each symptom varies in a different manner in each subject, according to the habit, natural disposition, and education, of the patient ; and the vehemence of the disease ; so that this disorder, always uniform and similar in what is essential to it, is various and dissimilar in all other circumstances.

This disease, however rare, occurs more frequently in warmer climates ; where the energy of the causes,

by which it is brought on, is more powerful. It is, therefore, a matter of wonder, that Hippocrates, Galen, Celsus, Aretæus, Orobasius, and Paul Æginetus, who wrote of medicine in Greece and Italy, should not take the least notice of it. But a still greater cause of admiration arises from the total silence, with respect to it, of the physicians who lived betwixt them, and our time, before the revival of letters: especially of those, who were inhabitants of a warmer climate; where the disease must formerly, as well as at present, have been more common: ² as Arnold De Villeneuve, Valescus de Tarenta, Bernard Gordon, and William Rondoletius, amongst the *Narbonnenses*: and Anthony Guainerius, and Alexander Benedictus, among the ³ Italians; by whom, while they explained the other diseases of women, this seems to be designedly omitted: as if they were unwilling to speak of any disorder, of which the antients had made no mention.

Soranus, a Greek physician, who lived in the reign of Trajan, a little before Galen, is the only one, as far as I know, who has expressly spoken of the *furor uterinus*. His writings are indeed lost: but Aëtius confesses, that *Chapter 74*, of *Book the XVI.* of his work *De Contractâ ex Veteribus Medicinâ*, in which this disorder is treated of, was taken from him. This chapter of Aëtius is indeed intitled *De Furore uterino*, but as this title was given to it by Janus Cornarius, who translated Aëtius into Latin; and whose version

¹ There are, however, one or two places to be found in Hippocrates, and Galen, in which, if they be taken in a favourable sense, this disease seems to be either named or alluded to.

² All these places, among other kinds of *delirium*, mention the raving love of men in women, in particular chapters: but not *γυναικείον*, indeed, or *de furore*

uterino, among the diseases of women, which they explain.

³ It is very extraordinay, that Alexander Benedictus should be silent, with relation to the *furor uterinus*, in the place where he treats of the diseases of women; when he relates an observation of a woman, who had an uterine madness, *Libr. I. Cap. 28. de Insanâ*, pag. m. 49.

was published by Frobenius at Basil ; I thought proper to have recourse to the Greek original, that I might know with certainty the genuine word, by which Aëtius, or rather Soranus himself, whom he transcribed, named this disease in the Greek : in setting about which, I took upon me a difficult and laborious task. For Aëtius's work contains sixteen books, of which only the eight first are published by Aldus and Asulanus at Venice, in *folio*, in the Greek, in the year 1535 : and the other eight latter remain yet unpublished. But it happened luckily for me, that there were four entire Greek copies of Aëtius, in the royal library : and I lost no time to examine them with the greater assiduity : from whence I discovered, that the title, Aëtius has given this chapter, is $\pi\epsilon\rho\tau\eta\tau\alpha\mu\alpha\nu\alpha\sigma$.

I then recollected, that the same word had been used by Nicholas Myrepsus, Alexandrinus, in whom there is an antidote that, he ¹ says, avails against the *metromania* : by which name the *furor uterinus* is, doubtless, to be understood : the same is to be found in Zonara, a Greek historian, who relates in his *Annals*, Vol. III. page 23. “ That Eusebia, the wife of the emperor Constantius, the son of Constantine the Great, was celebrated for her beauty, but unhappy on account of her husband, who was debile by nature, as well as by diseases ; and unfit for venery. On which account, gradually pining away, she died before Constantine, never having had any child : and as some, indeed, say, she was seized with a *furor uterinus*, which killed her ; $\chi\alpha\iota\mu\pi\tau\eta\mu\alpha\nu\alpha\sigma$ νοσήματι $\pi\epsilon\rho\tau\eta\tau\alpha\mu\alpha\nu\alpha\sigma$ ι\xiλιπε.”

There are some other names of this disease. Thus by ² Moschion, a later Greek physician, but of uncertain date, it is called ³ *Satyriasis* : and by others later

¹ De Antidotis, Sect. I. Cap. 218. ³ A name less proper ; and borrowed from a similar affect in men,

² De affectionibus muliebribus, Cap. 128.

still,

still, *Nymphomania*, which means the mania of the *clitoris*, that was formerly called *Nympha*: or *Erotomania*; which is, *Mania amoris*. But we have avoided employing these terms, because they are not received into common use.

§. II. CAUSES.

It is obvious, that two diseases are conjoined in the *furor uterinus*; an excessive inclination to venery, which depends on the disordered state of the *uterus*; and a *delirium* at first melancholic, and afterwards maniacal, which depends on the disordered state of the brain. If both occur together, they constitute the *furor uterinus*: which is the present subject of consideration. If one be wanting, it will be either an unbounded inclination to coition, without any *delirium*; or a simple melancholy, or *mania*, without any excessive desire of venery. To explain, therefore, from thence, the nature of the *furor uterinus*, must be spoken of in order, 1°. The unbridled desire of venery simply. 2°. The same conjoined with a melancholic *delirium*. 3°. Lastly, the same when it arises to a *mania*.

Firstly, The excessive inclination to coition is brought on by a more vivid, and strong succussion of the organs, which are the seat of venereal pleasure in women: much in the same manner, as intense hunger, or thirst, arise from a more powerful impression made on the stomach or throat. But the organs, which are designed by nature to excite venereal pleasure, are many.

1°. The *clitoris*, which, according to the general opinion, is the seat of the most exquisite pleasure: from whence it is called *amoris dulcedo*.

2°. All the extent of the *vagina*; as is manifest: but chiefly the anterior part of it, which is connected with the *vulva*, and is the straightest.

3°. The internal surface of the *uterus* itself, which is sensible of pleasure, and incites to venery, in like manner,

manner, as in intense hunger and thirst, it is certain, the stomach partakes of the sense of want of meat or drink. What is here said of the perception of desire in the *uterus*, is confirmed by the observation, that, in the females of other animals, venereal inclination ceases on their first becoming pregnant: and it abates much, likewise, in women under the same circumstances; the sensibility of the *uterus* being diminished.

4°. All the vessels, which are employed in secreting the seminal humour, ought, also, to be enumerated amongst those that conduce to venereal desires: because they partake of the pleasure. They are, 1°. The *prostata*, which surrounds the *urethra* of women; and copiously discharges a secreted humour from two small orifices, or *lacunæ*, at the sides of the *urethra*, in the superior part of the *vulva*, under the *clitoris*. 2°. Cowper's Glands, which are situated in the *peritoneum*, resembling an *isthmus*, lying betwixt the *anus* and *vulva*; and open by two ducts at the beginning of the *vagina*, near the roots of the *carunculae myrtiformes*. 3°. Many glands, either dispersed, or conjoined in bunches, with which the surface of the *vagina* is overspread: from whence it is certain, that an humour, viscid in a lesser degree, analogous to the *semen*, is excreted. 4°. Various imperceptible *lacunæ*, dispersed over the surface of the *vagina*; from whence a limpid and subviscid humour flows, but in a small quantity. 5°. Lastly, various excretory orifices distributed over the internal surface of the *uterus*, from which a copious quantity of unctuous humour, which moistens the cavity of the *uterus*, flows out during the act of coition.

This being granted, as it cannot indeed be controverted, it results, that women may be greatly affected by the more vivid impressions on the organs; and by that means more irritated to venery, from three causes. 1°. If the succussions, which ought to be imparted to the organs above mentioned, in order to excite venereal sensation and desire, be stronger. 2°. If the peculiar disposition of the organs, necessary for

receiving those succussions, be so great, that they may receive them more vividly. 3°. Lastly, if, from the concurrence of both these causes together, stronger motions are communicated to the organs, and received by them more vividly: from whence the venereal sensation, and desire, must be increased in a double *ratio*.

I. The succussions, by which venereal desire is kindled in women, may be reduced to three kinds. 1°. To the gentle friction of a certain degree and kind, of the abovementioned organs, by which they are titillated. 2°. To gentle and pleasing irritations, by which they are stimulated. 3°. To gentle motions, of a certain and determinate degree of force, by which they are contracted. But what the degree or species of these motions should be, in order that the venereal sensation may result from it, cannot be defined by any certain *ratio*. It is only obvious, that they differ from those other motions of these parts, of which pain is the result: as the motions, which bring on hunger and thirst in the stomach and throat, differ from those of the same parts from whence pain arises.

But the masturbative frictions of women are not to be reckoned here: because they are made by exterior means, which do not produce a *furor uterinus*: and, therefore, it is only proper to inquire into two other causes; to wit, the irritations, and gentle motions, which are almost resolvable into the same: and which are brought about by the *semen*, or seminal humour, flowing into the *vulva*, *vagina*, and *uterus*, and the cavities communicating with these parts.

But these irritations, or gentle motions, are more vivid, and therefore stimulate more strongly to venery. 1°. If the *semen* and seminal humours abound in quantity. 2°. If they be faulty in the too great degree of acrimony. 3°. If, at the same time, they be redundant in quantity; and faulty in the too great degree of acrimony.

I°. They

1°. They are redundant in quantity, when the blood itself, from which they are produced, is too copious in the body: as in women,

Who live well, and plentifully; and eat soups, and compound dishes. *In general, says St. Jerom, every kind of luxury, and stuffing of the belly, are the sources of venereal inclination.*

Who lead an indolent and sedentary life, from whence the perspiration is more sparing; by which a sufficient quantity of blood fails of being dissipated.

Who have the organs, designed by nature for the secretion of *semen*, larger, and more open, by their original conformation, from whence a more copious secretion of that humour is made.

Who, by a more frequent commerce with men, and repeated titillations of women, have a more plentiful discharge of *semen*. Thus it is universally known, that by repeated suction, the milk is more copiously secreted in the breasts; and, by repeated spitting, the *saliva* in the salival glands.

2°. The *semen* is faulty by a preternatural acrimony in women,

Who are of a bilious, or an atrabilious habit; and whose blood being acrid, muriatic, and ammoniacal, affords *semen* of the same qualities.

Who feed on meats, that are salt, spicy, dried with smoke, and acrid: who drink rich wines, or spirituous liquors; and who indulge themselves in chocolate, and coffee, that are particular incentives to venery.

Who augment the heat and acrimony of the blood, by sitting up late, or by vehement passions of the mind; whence it is inflamed.

3°. There is a concurrence of both the faultinesses of the *semen*; to wit, redundancy, and acrimony; whenever the causes, by which each is brought on, happen together: of which, indeed, as it is manifest, if not all, at least the greatest part, do happen together from the affinity of causes.

* In *Epistola ad Furiam.*

II. The peculiar disposition, by which the organs are rendered susceptible of more vivid succussions, consists in three circumstances. 1°. In the fineness of the nervous fibres ; from whence it results, that, other things being equal, they are more easily, quickly, and strongly put into a vibrative state. 2°. In the greater tension of those fibres, which, other things being equal, must have the same consequence. 3°. In the concurrence of the smaller and greater tension of the nervous fibres ; from whence it results, that their oscillations will be easier, quicker, and stronger, in a double ratio.

1°. The nervous *fibrillæ* of women will be finer,

From their original conformation : as it is evident, that the organs have a more acute perception, in some subjects than in others ; and that some parts are more acutely sensible than others, even in the same subject.

From the very frequent repetition of former succussions : as in those, who are accustomed to the frequent use of coition, or mastuprative titillations of women, from whence the nervous fibres are more flexible and vibrative : as it is found in musical instruments, with respect to the strings, that the more they are struck, the sharper they sound.

2°. The fibres are more tense ; and, consequently, vibrate more strongly,

From their natural conformation : whence arises the different power in different organs of sense : as one person sees more acutely ; and another hears more perfectly.

From the parchedness, which happens to the women, in whom these parts are dryer by nature, or disease.

By the phlogose inflammation of women ; whence the nervous fibres are more forcibly stretched. But this phlogose tension is brought on, either by an *erethismus*, in which the fibres of the *uterus* act by re-iterated irritations, and vellications, which a more acrid *semen* causes ; or by the presence of the *mensæ*, particularly if they be retarded, or continue a long time.

3°. Lastly,

3°. Lastly, the nervous fibres have a greater degree of fineness, and are at the same time more tense; whenever, if not all, at least some of the abovementioned causes happen together; and they must the more frequently, on account of their affinity. But whenever this concurrence does happen, it will be some time after, that the venereal sense will be augmented in a duplicate *ratio*, as well of the too great fineness, as the greater tension of the nervous fibres.

III. Moreover yet, if it happen, that two of the abovementioned causes, of which one depends on the redundancy or acrimony of the seed, and the other on the too great fineness or tension of the fibres, come together, as is, for the most part, common; because they have an affinity of nature with each other; it must result thence, that, on one hand, the nervous fibres of the women would be more strongly irritated by the more acrid and abundant *semen*; and, on the other, at the same time, the motion, which is imparted to them, would be more vividly received; because, when they have a greater degree of fineness, and are more tense, they are more vibrative: from whence it must result, that the venereal sense, and inclination, would be augmented in a duplicate *ratio* of each cause.

Secondly, We have hitherto spoken only of the excessive propensity to coition, such as it is in the first stage of the disease, which does not yet constitute a *furor uterinus*, unless a *delirium* come on; at least the melancholic; of which it is now proper to take some notice, though briefly.

Therefore, 1°. The patients, as they glow with inclination to venery, while they retain the use of their reason, from the natural discord or *heterochronism* of the fibres of the brain, by which the ideas, as well of the subject, as attribute, of this proposition, *that to give one's self up to lust is neither honourable nor lawful*, are renewed in the mind, affirm, that it is true, with the strongest asseveration; nor are ever driven from that opinion, in what degree soever they burn with the heat of lust.

2°. But

2°. But by the re-iterated, and frequent succussions of these fibres, which are made together, it happens at length, that, by mutual approach, they are brought to the same tone ; and concords arise from dissonants, or, what is the same thing, *isochronæ* arises from *heterochronæ* ; whence, the patients having changed their opinions, must of course affirm now, what they denied before ; to wit, *that to give one's self up to lust is honourable and lawful* ; which constitutes the second stage of the disease.

3°. In the beginning, this preternatural concord of the fibres, brought on by the disease, does not subsist continually, but varies in different manners, from several causes : if the desire of venery grow weaker ; if by the rest of sleep, the hurried motions of the fibres are rebated ; if, by the use of anodynes, the fibres be relaxed ; if the too great heat of the blood grow more moderate ; or if the patients, reclaimed by advice, reproofs, or correction, begin again to have the use of their reason : whence it arises, that the melancholic *delirium* is for the most part so changeable, in this stage of the disease, with respect to its vehemence and intenseness : and, in like manner, the words, and actions of the patients are also mutable.

Thirdly, But every thing grows greatly worse in the third stage of the disease, in which,

1°. As indeed, by the continuance of the disorder, the fibres which represent the ideas of the subject, and attribute of the proposition offered, together, also, with many other fibres, in which various ideas are excited, that relate to venery, are absolutely changed in their tone ; so that now they become concords with many other fibres, with which they were before discords : whence the patient must affirm, from this change in them, what they before denied ; and deny what they before affirmed : and hence a various and complicate *delirium*, to which raving madness, in a short time, succeeds : because the patients deviate from right reason : and being hurried with a more vehement motion of the spirits, fly furiously at all, who come in their way ;
all

all seeming enemies to them: and thence arises a truly maniacal *delirium*.

2°. It is to be observed, however, in the *mania*, which is caused by the *furor uterinus*, the *delirium*, though it spreads farther than the melancholic, is not universal, but extends only to some objects, which relate to venereal matters, as has been said before, from whence arose the first consciousness of the disorder, which is not peculiar to the uterine, but common to every deuteropathic *mania*, which succeeds to a melancholic *delirium*: though the contrary is found in the protopathic *mania*; in which the *delirium* spreads much farther. But it is sufficient here to touch on this: which will be more diffusively and clearly explained in the Treatise on the diseases of the head, that, I hope, in a short time to publish, if God give me life and leisure.

§. III. DIFFERENCES.

Though the *furor uterinus* is, in its own nature, not very variable, it is subject, nevertheless, to some differences: not indeed essential; but such as are necessary to be known, in order to have a perfect knowledge of the disorder.

It is, therefore, distinguished, I. With relation to the state or stage,

1°. Into the beginning, when there is an excessive degree of lust; but which the patients, hitherto possessed of the use of their reason, and conscious of the turpitude, of which they have an abhorrence, strongly repress; or carefully conceal.

2°. Into the confirmed state, with the melancholic *delirium*; in which the disease growing worse, the lust is so unbounded, that the patients, now disordered in their senses, laying aside all modesty, if they do not offer themselves in the most open manner, show, at least, sufficiently, that they are ready for the business, by lascivious gestures, and strong expressions.

3°. Into the extreme degree of the disease with the maniacal *delirium*; in which it bursts forth into a

raving madness; that is, into a more universal *delirium*, attended with fury; and such, that shame being wholly disregarded, the patients, void of the least degree of reason, openly sollicit and urge all men whatever, to lie with them: and, if they refuse, assault them with the most violent rage.

II. It is distinguished, with relation to the cause, into the *furor*,

1°. Which is caused by the faultiness in redundancy, or acrimony, of the *semen*; or both together: whence the stimulus to venery is augmented.

2°. Which is caused by the faultiness of the nervous *fibrillæ*, interwoven in the female parts of generation, that are more than commonly disposed to vibrate, from their fineness, or their tension; or from both together: whence a more acute perception of the venereal sensation.

3°. Lastly, which is caused by the faultiness, as well of the *semen* as the *parts*: whence the degree of the whole is augmented in a double *ratio* of the simple causes.

III. It is distinguished with relation to the symptoms which come on,

1°. Into the *furor uterinus*, WITHOUT DELIRIUM: such as it is in the first stage at the *beginning*.

2°. Into the *furor uterinus*, WITH THE MELANCHOLIC DELIRIUM: such as it is in the second stage, or *confirmed*.

3°. Into the *furor uterinus*, WITH THE MANIACAL DELIRIUM: such as it is in the third stage, when in the greatest degree.

§. IV. SYMPTOMS.

The symptoms of the *furor uterinus* are various, according to the different stages of the disease: but all are easily deducible, from the theory laid down, as so many corollaries.

I. In the *first* stage, 1°. The patients perceive themselves reluctantly to burn with lust: but duly conscious to themselves, that *it is vile and wicked*,

to indulge such inclinations, they remain anxious, solitary, sad, thoughtful, and silent.

2°. But, nevertheless, continually dwelling on obscene thoughts, they are more faintly affected by all other sensations, even those of hunger, and thirst; and thence it arises, that they neither eat, nor drink, whatever occasion there may be for either.

3°. So vivid, indeed, is this attention of the mind to venereal matters, which wholly possesses it, that those fibres of the brain, in which the ideas of such matters are renewed, being more tense, strongly oscillate without intermission: whence it proceeds, that they are less disposed to sleep than naturally.

4°. In the mean time, conscious of their vileness; hitherto, while they retain their reason, they endeavour to restrain, and carefully conceal, the desires with which they burn.

5°. But if any wanton conversation happen; if they hear any carefree discourse; if they think themselves tempted by any allurements; their mind being in a weak state, they soon show their inclination.

6°. It is common, however, in this stage of the disease, to have remissions, which the administration of remedies, change of air and weather, more careful diet, and some critical evacuation, produce: and in which the patients behave more sensibly; and appear to recover their reason, though seldom perfectly: but such lucid intervals are not to be depended upon; because a relapse of the disease succeeds shortly, in a more strong and aggravated degree, than at first.

II. In the second stage, 1°. The disease gaining ground, the fibres of the brain, which are designed by nature for recollecting venereal matters, begin to be so depraved in their tone, as has been said above, that as the patients positively believed before, *that it was not right to abandon themselves to lust*, now from the new error, which is the beginning of the melancholic delirium, they continue in a precarious state; and sometimes seem rational: but at others losing the sense of shame, endeavour to indulge their lust, wantonly

inciting the men, who come in their way; or plainly asking them.

2°. If any glimpse of hopes presents itself, that they are going to obtain what they so eagerly desire, they talk merrily, caress those whom they press and invite; and being hurried away by the violence of the erroneous passion, which blinds them, they urge and sollicit, if there be any delay, that they may be quickly gratified. But if they perceive themselves deluded by their hopes, they become sad, and complaining, go away muttering to themselves.

3°. Every thing grows worse from day to day; and the natural tone of the fibres is so perverted, that their discord changes into perfect concord; and the patients, therefore, gain a firm belief, that it is right to give themselves up to their lust: and thence say and do every thing, that the most vile depravity of mind can dictate.

III. In the *third stage*, 1°. The disease changes into raging madness; as has been mentioned before; and the patients raving particularly about those things, which relate to venery, continually speak obscene, immodest, words; and sollicit all that come in their way to the act: they first urge, and even compel them caressingly; but if they meet with an obstinate refusal, they fall furiously on them, with their fists and nails.

2°. Moreover, all the rest of the symptoms, which attend a *mania*, come on: as a constant *agrypnia*; an absence of hunger and thirst; but without fever; a patience of cold; blackness, sparingness, thicknes, saffron colour, &c. of the urine; of which we shall suppress the explanation; as they do not belong to this place.

IV. Besides these, there are other symptoms, which seem to belong to every stage of the disease. As, 1°. A strong vellication, which the more acrid state of the *semen* brings on the *UTERUS* and *VAGINA*, excites an almost constant *erethismus* of those parts: whence being convulsively contracted, they constringe the vessels

vessels furrounding them; retard the course of the blood; and give place to a *phlogosis*, such, as many times we read to have been found in the dead bodies of those who had the *furor uterinus*. For the *phlogosis*, as it is sometimes, according to what has been before shewn, the cause of the disease, is also sometimes meerly a symptom; but which, if it come on, greatly aggravates the violence of the disease.

2°. It is thence less to be wondered at, that the female parts of generation grow hot and dry, in the *furor uterinus*; that the *parietes* and coats of the *vagina* and *uterus* become rigid; and that the *vagina*, distended² by the rigidity of its coats, gapes with a constant stiffness, and remains open: each of which have been found in observations.

3°. It must, also, analogously happen from thence, that the *clitoris*³ grows greatly more large than common: that one or both of the *ovaria* tumefy preternaturally, with a thick viscid purulent humour; or be filled with *ova*, exceeding the natural magnitude; and that the Fallopian tubes themselves should partake frequently of a similar state; as has been observed in many patients, who have died⁴ of this disease.

4°. A *virus* flows sometimes from the *groin*, in women having the **FUROR UTERINUS**; either, because, by continually making a lewd friction on the parts, by the fingers, to excite venery, they bring on, by scratching, a discharge of some thick viscid humour: which runs

¹ Josephus Lanzonus, *Miscel. Natur. Curiosir. Decur. III. Ann. 5, & 6.*

*dico-gallici Ann. 1. Observat. 7.
Fridericus Lochnerus, Ephemerid. Germanicar. Centur. VII. & VIII.*

² Christian. de Helwich, *Ephemerid. German. Centur. I. & II. pag. 310.*

*Stephanus Blancardus, Anatom. Practice, Centur. II. Observ. 99.
Item Collectanea Medico-physical, Part. I. Observat. 28.*

³ The *clitoris* swells, also, in the *furor uterinus*, from the masturbation, that is practised.

Carolus Philippus Gesnerus, Actor. Physico-medicor. Volum. VII. Observ. 30.

⁴ Joh. Michaelis, *Praxis Clinicae Specialis Casu 22.*

Dominicus le Duc, *Zodiaci Me-*

from the *vulva*; or because purulent matter issue from some fistulous ulcer of the *uterus* or *vagina*.

5°. It results, from what has been said, that, in the *furor uterinus*, tumours; *steatomas*; hydatids; apostems; a discharge of *pus*; and a *phlogosis* of the *uterus*, and neighbouring parts; very frequently precede disease, as causes; or follow it, as symptoms: and as often as any of them come, however they may come, brings on the disease, which admits of no absolute cure; but of which the patients, after many and various torments, sooner or later, die a miserable death.

§. V. DIAGNOSTIC.

I. The diagnostic of the disease is obvious from the pathognomonic symptoms; which we have mentioned; to wit, an unbounded lust; a melancholic raving about venereal matters; and a maniacal raving, which succeeds the melancholic.

II. The diagnostic of the states, or stages, of the disease, are not less evident. 1°. If there be only an unbounded lust, which the patient, having sometimes the use of her reason, endeavours to repress; but of which, nevertheless, at others, plain signs are given; this will be the *first* state, or stage, of the disease.

2°. If the lewdness gains ground, they begin to lose their senses, and rave in a melancholy manner about venereal matters; and get the notion into their minds, that *it is right to give themselves up to their lust*; and, in consequence of that notion, behave themselves immodestly; it is the *second* state, or stage of the disease.

3°. If possessed with a raging madness, they talk various absurd things, or rave furiously about many; in short, if they be maniacal; compel all they meet to the act; allure them with immodest gestures; and, if they refuse, become raging; the disease is then arrived to the *third* state, or stage.

III. The diagnostic of the causes of the disease would be indeed very difficult, if it were required to be accurately

curately distinguished : but such a nicety would be of no use to the cure : as well, because both causes of the disease, the disordered state of the *uterus*, and the depravity of the *semen*, for the most part, happen at the same time ; and, therefore, both come under the same method of cure ; as because, if they do not happen together, which is neither frequent, nor can be long the case, they require the same, or a similar method.

§. VI. PROGNOSTIC.

The *furor uterinus* is a shameful and immodest disease, of which the ignominy not only falls on the patient, but also affects those related to her.

In general, it is difficult of cure, which it has in common with other cases of madness : and it is more difficult, in proportion as it is of longer standing. But in order to investigate the whole more exactly, it is proper to distinguish the different stages of the disease.

I. In the *first*, it is for the most part curable, if it be diligently, and quickly taken in hand, before the *delirium* come on. But the cure will be in vain attempted, if the treatment be begun later : and I think there is not any disease to which this common expression can be applied with more truth :

*Principiis obſta, ſerò Medicina paratur,
Cum mala per longas invaluere moras.*

II. In the *second*, when the melancholic *delirium* first comes on, the disease is incurable : because it goes on at length to a total loss of reason, unless a quick death prevent it. Sometimes there appears to be glimmerings of hopes of a cure, if the disease have frequent and long lucid intervals ; but in them, there is never any security, nor exemption from the fear of a relapse ; because there is always a hazard, that the ill suppress fire may burst out again.

III. In the *third*, at last, in which there is a *mania*, the disease may be justly deemed incurable : as there

is scarcely the least hopes, that the patients will ever recover their senses; but they will all be carried off by some apostem, ulcer, or *schirrus* of the *uterus*, Fallopian tubes, or *ovaria*; which brought on the disorder that produced the *furor uterinus*; or, on the continuance of the disease, fall into a total depravity of reason till they die.

IV. The following matters, relative to the prognostic, are found true, by unquestionable observations; and therefore seem proper to be mentioned.

That the *furor uterinus* will go away of itself,
1°. If the patient should have an ² immoderate discharge of the *menses*, or an uterine *hæmorrhage*: because the surface of the *uterus*, being thence softened, and relaxed, the venereal perception is rendered less acute.

2°. If a copious hæmorrhoidal flux should come on: because by means of the *anastomoses*, by which the vessels communicate with each other, the veins of the *uterus* would be unloaded, while the hæmorrhoids flow; and the *uterus* thence freed from the tumefaction, and relaxed.

3°. If the patient should undergo a large, and long-continued discharge of the *fluor albus*, in which the *uterus* should be moistened and cooled; and, consequently, the stimulus of lust be rendered weaker.

4°. If the patient should become pregnant: because the humour of the *placenta* of the *fetus*, being contained in, and consequently moistening them, would mollify and relax the coats of the *uterus*, and render them less sensible to the irritation of lust: but a relapse of the disease will easily happen, unless the patient be again pregnant within a year, or two, from the time of her lying in.

* Vide *Auctores* *suprà laudatos*, *ad Symptoma 3. Art. IV. §. IV.* pag. 365.

² Alexander Benedictus, *de Curand. Morb. Libr. I. Cap. 28.*

³ Dominicus Panarolus, *Pendecost. III. Observ. 9.*
Johannes Matthæus de Graff.

5°. If she be vigorously enjoyed: which has indeed had many times good effect, even in matrimony: but much better, if what is said be true, ² in a general commerce with men; whenever it happens, that the patients, becoming common, are had by many gallants.

6°. If the *uterus*, in case of a *descensus*, be suffered to be exposed to the air till it become cold. I am sensible, this is related only by Harvey; but I am sensible, also, that his authority alone is equivalent to that of many. *He says*, "that ³ to a woman of quality, mad with an *uterine furor*, and melancholy for more than ten years, to whom, after all means of cure had been in vain tried, a *descensus* of the *uterus* happened; I ordered, continues he, that the *uterus* should not be put back, till its undue degree of heat had been moderated by the external air. This succeeded according to my expectations; and in a short time afterwards she recovered; and the *uterus*, being at length reduced, remained in its proper place; and she enjoys her life in a healthful state."

§. VI. Method of cure.

All the stages of the *furor uterinus* are so many particular diseases; which, however they may seem to be of the same general nature, and brought on by the same cause as the others; yet varying in the proportion, must be deemed to differ, if not in species, at least in degree; which it is, therefore, proper to explain in distinct articles.

¹ *Zacutus Lusitanus, Prax. Medic. Admir. Lib. II. Observ. 93.*

Johannes Riolanus, pater, Method. Medendi Sect. IV. Tractat. 2. Cap. 21.

Dominicus Leo, Art. Medendi Libr. II. Cap. 9.

Ambrofius Stegmannus, Ephemerid. German. Decur. III. Ann. 1. Observ. 11.

² *Alexander Benedictus, de Curand. Morbis Libr. I. Cap. 28.*

Thomas Bartholinus, Observ. Anatomic. Cent. II. Observat. 69.

Christoph. Johann. Langius, Praxeos Medic. Cap. 24. §. XV. Ubi laudat Observationem Plateri.

³ *De Partu, extremo Libro.*

Method of cure in the first stage of the disease.

In the first stage of the disease, all the intentions of cure ought to be directed to these views, 1°. That the acrid blood, and the seminal humour produced from it, and, therefore, participating of its depravity, should be diluted, and corrected. 2°. That all the internal surface of the *vagina*, and *uterus*, should be moistened, and relaxed, to remove the morbid and unbounded lust. 3°. That, in the mean time, the patient, as much as possible, should be diverted from obscene thoughts ; and the bent of her mind turned towards such as are more proper ; both which may be obtained by the following methods.

I. To dilute, and correct, as well the blood, as the seminal humour, are of avail,

1°. Bleeding in the arm, unless the *menstrua* near, or at the time of ceasing, make it proper to be performed in the ankle. It is necessary, however, to bleed copiously, and frequently, in proportion to the age, constitution, and strength of the patient, and the violence of the symptoms.

2°. Frequent purging with gentle cathartics ; of which the virtue and efficacy is proper to free the *primæ viæ* from the bad chyle ; and to evacuate the *cæcochymia* of the blood ; but which have least tendency to irritate, vellicate, or throw the intestines into spasms, lest the *uterus* be affected by it, through the consent of parts.

3°. The use of broths, or apozems, which are made of,

The roots of water lily,	} to the quantity of
— — — — marsh-mallows,	
— — — — succory,	
— — — — sorrel,	} one ounce.

The leaves of water lily,
 ——— lettuce,
 ——— purslain,
 ——— willow,
 ——— lens palustris,

} to the quantity of
one ounce.

The leaves of hemlock,

} to the quantity of
two handfuls.

Flowers of water lily,
 ——— mallows,
 ——— poppies,
 ——— violets,

} to the quantity of
one or two hand-
fuls.

From which three or four must be chosen, that are most approved of ; and from them the broths, or apozems, made according to art, twice in the day, morning and evening ; to be given at the greatest distance from the meals, for seven days together ; adding to each, *sal prunellæ*, chrystral mineral, or the *sal sedativus* of Homberg.

4°. Whey clarified, and strained through a filtering paper, to the quantity of four glasses, or draughts in the day, at the greatest distance from the meals ; in one of which draughts may be boiled, an ounce of water lily root, cut into slices ; or half an ounce of the syrup of water lily may be added to it. The whey will be of more efficacious effect, if it be taken as the only drink, and be not disagreeable to the patient.

5°. Asses milk, taken twice a day, in the quantity of nine or ten ounces, morning and evening, if the stomach can digest it. But if the patient be conformable, and easily submits to this tiresome diet, it would more conduce to the effect, that milk should be taken for the whole food, in the place as well of dinner, as supper ; besides the draught of asses milk, morning and evening, two other draughts of cows milk, or various dishes, prepared with such milk, should be given.

6°. Emulsions,

6°. Emulsions, twice a day, morning and evening; four draughts of which may be made of the four greater cold seeds, in the quantity of three ounces; or from

The seeds of lettuce,	} from three ounces to four.
— purlain,	
— white poppy,	
— hemp,	

All which must be diluted in a marble mortar.

In the distilled water of water lily,	} from four ounces to five.
— lettuce,	
— purlain,	

To the filtered fluid of which is to be added,

The syrup of violets,	} in the quantity of one ounce.
— water lily,	

It is usual from these seeds, waters, and syrups, to chuse those which are most approved of, few in number, and in such a proportion, as is neither too great, nor will make the draught too thick.

7°. Mineral waters, of the chalybeate kind, to be daily drunk, for a month, if the weather favour, in the quantity of two or three pints, some purgative salt being added in the first draughts: such as *sal de duobus*, in the quantity of three drams; *sal de seignette*, in the quantity of two ounces; or Epsom salt, in the same doses. Among the waters of this kind in our own country, are greatly commended, those of Vals, Caransac, Buffan, Pouges, Forges; and among the foreign, those of Spa, and Selter.

8°. An exact diet, with relation to which, by the rules of art, the patients ought chiefly to eat food,

that moistens, corrects, dilutes, and cools, as are the various kinds of garden stuff; as,

Cucumbers,	Lettuce,
Melons,	Purslain,
Borage,	Succory,
Bete,	Spinage,
Endive	Orach.

And ripe fruit; as,

Cherries,	Ripe grapes,
Strawberries,	Plumbs,
Apples,	Currens.

Lastly, puddings, or creams of rice, with weak veal, or chicken broths.

Wine, chocolate, coffee, and all flesh, except veal, chicken, and young rabbits, must be forbidden.

Lastly, narcotics are to be administered, which procure sleep; if it be sparing, or short, in the disease.

9°. The proposed remedies, if it seem proper, should be either changed for each other, or prescribed together, as they may be successively required: but they must be continued for a long time: and it is not to be expected, that an obstinate, and almost incurable depravity of the whole mass of humours, greatly heated, can be corrected, or changed for the better, by slight means.

II. The internal medicines, of which we have largely spoken above, conduce to moisten, and lax the *uterus*: but it is much more effectually done, by the following external or topical remedies.

1°. Baths, or half baths, of cold river water, in which has been boiled, the leaves of the emollient plants, that have been mentioned before in the preceding article n° 3. It is usual for the patient to go into them twice a day, and continue there for two hours; and to propel the water with the hand, or a sponge, high into the parts of generation, that they may be bathed by it.

2°. Glysters,

2°. Glysters, to be frequently injected;

Of whey,

With the decoction of lettuce,

— purslain,

— navelwort,

— houseleek,

— water lily,

— leaves of willow,

To which may be added oxycrat, in the quantity of some ounces, and after received, they must be a long time retained, that more certain means may be obtained for the refrigeration and madefaction of the internal parts.

3°. Injections, gently warm, must be made by an uterine funnel or syringe,

Of whey,

The decoctions of barley,

— lettuce, or some of the abovementioned herbs;

Which must be carefully thrown into the cavity of the *uterus*, if the mouth gape; as is common, for the most part; and retained there for a long time: the patient being placed in a proper posture. If the disease be urgent, it is serviceable to add to each injection half a dram, or a dram, of the juice of night-shade, (*Morella*) houseleek, or even hemlock.

4°. Pessaries introduced into the *vagina*; which are variously compounded: for sometimes pieces of cloth, made into the form of a roll; or a soft sponge, cut into lengths, steeped in a thick, and cold decoction of some emollient herbs; are put into the *vagina*: and sometimes a long linnen bag, full of the pulp of the same herbs, is thrust into it: but which ever it may be, it is proper, after a short time, to take out the first, and introduce others successively, to prevent their growing warm, by their too long continuance.

5°. Leeches,

5°. Leeches, fewer or more, as there may seem occasion, placed on the edge of the *podex*, if it be greatly swelled in consequence of the *phlogosis*: because the blood may be by their means derived from the vessels of the *uterus*, with which the hæmorrhoidal veins communicate by many *anastomoses*: for which reason, the emptying these vessels relaxes the substance of the *uterus*. I do not, however, absolutely prescribe this kind of relief: but as it may sometimes be serviceable; I did not think proper to omit mentioning it.

III. While these remedies are practised, it must be endeavoured, by every method and means, to divert the patient from obscene thoughts; and to remove their melancholy; to which end,

1°. They must be excited, driven, compelled, by frequent advice, admonition, and chiding, to abhor their lascivious disposition; and, from a sense of modesty, restrain their desires; and at length banish them from their hearts.

2°. Care must be taken that they associate with prudent companions of known virtue; but jovial and merry, with whom they may chearfully and genteelly converse; and by whose example and discourse, they may be in some degree brought back to a reasonable way of thinking.

3°. Their minds must be engaged by walking, dancing, assisting in the work of a farm, feasting, and journeys; that, being amused by every pleasure, they may be diverted from the obscene thoughts with which they were possest. It is of consequence, indeed, to employ them, also, in domestic busines, if they could be prevailed upon to apply diligently to it; but for the most part they cannot, or will not.

4°. All talk of venereal enjoyments, books of love, and lewd songs, must be strictly forbidden them: and great care must be taken, that they have no familiar commerce with men; nor indeed any conversation with them at all; particularly those for whom they seem to have any fondness.

5°. Measures

5°. Measures must be taken that they do not lie on feather-beds, or mattrasses of wool, by which the heat of their loins may be augmented, and that of the parts of generation, already too greatly aggravated, be increased, but on beds of soft straw, *paillasses*, or at most, such as are stuffed with horse-hair.

6°. Lastly, if these methods fail of the desired effect, without further delay, they should be married, supposing circumstances to allow it, to some of their lovers, indeed, if it can be rendered convenient; but if not, to any vigorous young men, who may be amiable, if not beloved: which is, as was before said, §. VI. *Of Prognostic*, n° 5. the most certain and efficacious medicine in this stage of the disease.

In the second stage.

When, after the melancholic *delirium* is come on, every thing grows worse, it is necessary to administer the remedies more assiduously, and in greater doses; and to select those which are most efficacious: but from those classes, that are agreeable to the particular intentions of cure, which arise.

Therefore, 1°. Bathing should be used more frequently, and twice in a day, in cool water, repeatedly poured over the head; in which the patient should be kept for four hours, if it can be done.

2°. It is proper to try every kind of remedy proposed in the preceding stage. Frequent bleedings; whey for the whole drink; or very cooling ptisans; diluent and emollient apozems, emulsions or juleps; mineral waters; &c: which must be persisted in for a long time, that the violence of the disease may be overcome, or at least abated.

3°. Care must be taken, that the patient have sufficient nourishment, even plentifully, of a kind that is of easy digestion, and cooling, such as was proposed for the preceding stage.

4°. If there be no sleep a nights, or a restlessness, narcotics must be administered, in a dose suitable to the

the disease : amongst the first of which are the *tinctura anodyna*, from twenty-four drops to thirty ; or the *laudanum opiatum*, from one grain to two.

5°. It is proper to purge frequently, and with the more powerful cathartics ; to wit, (*in a liquid form,*) with the decoction of three drams of sena, and two drams of the *sal de duobus*, dissolving, in the strained fluid, two ounces of manna ; and adding ten or fifteen grains of *diagrydium* : and, (*in a dry form,*) with a bolus of *diagrydium*, and jalap, powdered, each in the quantity of twelve grains ; eight grains of the powdered root of black hellebore being added ; observing this caution, that, while the medicine operates, a draught of small veal broth, boiled with some leaves of succory, should be given every hour.

In the third stage.

When the *mania* first comes on, the disease is almost desperate ; but all care of the patient should not, however, be laid aside. For, on the contrary, it should be endeavoured, with the greatest assiduity, to mitigate their misfortune as much as is possible.

To which end, 1°. There is occasion for frequent bathing in cold water ; which should be many times repeatedly poured on the patients heads ; and in which they should be kept as long as their strength will bear it.

2°. Frequent and copious bleedings must be performed in the arm, ankle, and neck, till the strength being diminished, the *furor* of the patients may be repressed ; and they being made conscious of their weakness by the servants who attend, may be rendered more tractable.

3°. Evacuation of the bilious humour, very often repeated, by diaistic purges, or with vomits ; by which not only all the depraved matter in the intestinal canals, but, also, in all the *viscera*, that communicate with the intestines, may be effectually removed.

4°. The heated *uterus* should be cooled, by injecting *oxycrat*, cold, or only gently warm, from time to

time, if the patients submit to this treatment, as they generally do: because they themselves are fond of remedies against the itching and burning of the *uterus*, with which they are tormented.

5°. If the patients have no sleep at nights, as is almost always the case, such narcotics should be given them, even in large doses, as may be sufficient to procure sleep: but it is proper to administer them only at intervals, lest any harm may be done by too large, and too closely repeated doses.

6°. Care must be taken, that they may eat plentifully; but of what is easily digested, and cooling: and at last, if they rage greatly, they should be tamed by beating, and secured by chaining, lest they do harm to themselves, or those who are near them.

§. VIII. Remedies which are recommended against the *furor uterinus*.

I. By most physicians¹, camphor is positively recommended as a specific for asswaging the heat of lust in the *furor uterinus*. It is given in substance from ten grains to fifteen, in any vehicle; or in the form of a bolus: sometimes a lump of it, of twelve grains weight, is set on fire; and thrown into a draught of water; which is afterwards given to the patient to be drunk.

I wonder whence this opinion of the anti-aphrodisiac virtue of camphor arose: whether from that common verse,

Campbora per nares castrat odore mares,

which was received on no other foundation, than the false notion, that camphor was held to be of a cold nature, though it is manifestly of a hot one.

I have myself found, by experience, that the common opinion, concerning the virtues of camphor, if

¹ Vide Michaelum Ettmullerum. *De Morbis Mulierum. Cap. 2.*
Et alios passim.

it be not false, is certainly not always true. For in the case of two women, who had the *furor uterinus*, I administered it many times, and in great doses, without any success.

II. If credit be given to Ettmuller¹, the limpid and watery fluid, which distils from the tender branches of willows, when they are cut in the spring, is of great avail in the *furor uterinus*. He proposes this fluid either to be given alone, or in a cake, made by kneading flower with it; *which being administered to the patient, extinguishes all propensity to venery.* The same thing is done, he says, *by a decoction of the young willow, often drunk with an empty stomach: for it not only restrains the inclination to venery; but sometimes renders the women absolutely barren.*

Praeved upon by such strong assertions, though I could not obtain the fluid dripping from the cut branches of willows, while the two women before mentioned were under my care, it being then autumn, I made a repeated trial of the leaves of willow in large doses: but I do not remember that it was of the least benefit.

III. The *agnus castus* or *vitex* is extremely celebrated for allaying the *stimulus* of lust. It is boiled in broths, apozems, ptisans, or uterine injections. I have never proved the virtue of it: but the bitterness, and acrimony, which are perceived in the leaves, when chewed, and more particularly in the seeds, render its anti-aphrodisiac virtue justly dubious. It may be added, that the *agnus castus* is presumed to excite the *menstrues*²: which affords a strong argument, that it is not indued with such a quality. But, however, as there is no hazard in the use of it, there is no reason why any one should not try it, at their pleasure, if there be occasion.

IV. We have seen above, that it is necessary, in the cure of the first stage, the patients should lie on

¹ Vide Michaelum Ettmullerum. *De Merbis Malicorum.* Cap. 2. Et alios passim.

² Dioscorides, *Libr. I. Cap. 135.*

beds of straw. But those who confide in the efficacy of the *agnus castus*, propose, that they should lie on beds stuffed with dry leaves of it : an instance being borrowed from the Athenian matrons, who in the *Thesmophorii*, or sacred rites of Ceres, preserving their chastity, made themselves beds of the *agnus castus*: Pliny¹, and Dioscorides², being referred to, whose opinion I will not contest; though I am not convinced of the virtue of the *agnus castus*. I would, however, have it known, that there must be a constant trouble, in renewing the beds ; because the dried leaves of this shrub are soon reduced to the state of a powder.

V. The physicians, who have more particularly treated of the *furor uterinus*; as Sennertus³, and Riviere⁴; among other truly anti-aphrodisiac simples, have enumerated some, that are of a nature widely different; as dill; the seed of the *duncas*; the *lignum aloes*; rue; mint; and even turpentine itself: which, as they are acrid, and powerfully promote the *menses*, rather tend to inflame an excessive inclination to venery, than to mitigate it. For which reason, it seems proper to give a caution, that no one, induced by the authority of so many authors, should believe, remedies of this nature can be administered with success against a *furor uterinus*.

VI. The same authors extol some remedies, with too high praises, which seem to afford but small ground of hopes. Thus Sennertus⁵ praises a water, that he calls the *water of chastity*, which is a kind of julep, formed of distilled waters :

R Aquar. *Menthæ*, *Chelidoniae*, *Anethi*, *Liliorum convallium*, *Liliorum alborum*, *Nymphæ*, $\text{aa } \frac{3}{4} \text{ J. M.}$
Dosis unc. ij vel iiij.

¹ Histor. Natural. Lib. XXIV. Sect. 3. Cap. 5.

² Cap. 9.

³ Libr. I. Cap. 135.

⁴ Practic. Libr. V. Part. II.

⁵ Praxeos, Libr. XV. Cap. 5.

⁶ Ubi supra.

The same author commends, also, another water distilled from several plants, according to the following manner.

R. Fol. Nymph. Vitic. Salic. aa m. iij. Lactuc. Portulac.

Umbilic. Veneris, aa m. j.

Semin. Lactuc. Papaver. quatuor Frigidorum ma-
*jorum, aa 3*fl.**

*Aneth. 3*fl.**

Florum Nymph. m. j.

*Violar. m*fl.**

*Contundantur omnia recentia, & irrorentur succo Limonum, ac stent in digestione horis 24; postea distillentur, & distillati singulis libris add. Camphoræ 3*j.* Servetur ad usum. Dosis 3*j.**

Which is found in the same words in Riviere. But I imagine that both these remedies are of little service in the *furo uterinus*, for two reasons. 1°. Because some plants, as mint, celandine, and dill, are admitted into their composition, which increase, rather than abate venereal desires. 2°. Because it is certain, that waters, distilled from plants, are of less service than decoctions of the same; and should not, therefore, be brought into use, except where the fresh plants are wanting.

VII. Hemlock is recommended by all the more antient physicians for the *furo uterinus*. They prepared cataplasms of the bruised leaves, and applied them to the loins; and mixed the expressed juice of it with uterine injections: and they even gave it, by drops, to be taken by the mouth, in various draughts. In order to confirm this method of practice, they produce the authority as well of St. Basil, who says ¹, *se vidisse quasdam fæminas, que potionē cicutæ extinxerint rabiosas cupiditates;* as of St. Jerom, who writes ², *Hierophantas pontificatum adeptos cicutæ fe castrasse.*

¹ Ubi supra.

² Contra Jovian.

³ Homil. V. supra Hexa-

mer.

I am ignorant what ought to be thought of the anti-aphrodisiac virtue of hemlock, as I have made no trial of it: but I am apt to believe, that the authority for this quality of the plant took its rise from the false notion, that it was cold; whereas, on the contrary, it is hot. But it happens fortunately, that now it may be tried without any hazard: as it is known that the juice of hemlock, moderately inspissated, is given daily to patients affected with cancers, to the quantity of many grains, without any danger; of which more will be said below, *Book II, Chapter VII.*

VIII. As various chemical preparations were at first received into use, those, who trust too much in chemistry, have not ceased to obtrude many preparations of lead for several diseases, and particularly the *furor uterinus*: especially the *saccharum saturni*, of which some grains are proposed to be dissolved in uterine injections; and what is of still more consequence, in those draughts, which are to be taken by the mouth. But we have, and not without reason, expressed our condemnation of this above.

IX. There remains a question of yet higher moment. Some physicians advance, that, by titillating the privy parts of women, a discharge of corrupted *semen* is produced, from whence the first cause of the disorder arises¹: which others think to be wicked and forbid by religion. It is not our business to decide such a dispute, concerning which, let those be consulted, into whose proper province and jurisdiction this decision falls: but I shall intimate, that such a decision would be in fact vain: as the patients themselves, from their own disposition, or rather from the effect of the disease, perpetually use masturbation with them-

¹ Varandeus. *De Morbis Mulierum, Libr. I. Cap. 5. & Antiquiores omnes.*

² Riverius, *ubi supra.*

selves ; and neither desire, nor seek, for any other help : in which, however, they greatly injure themselves ; as this masturbation does not in the least abate the violence of their lust ; but rather inflames it. It would, nevertheless, be preaching to the deaf, to endeavour to keep them from this vile practice by advice : from which nothing, indeed, can hinder them, unless they be chained.

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